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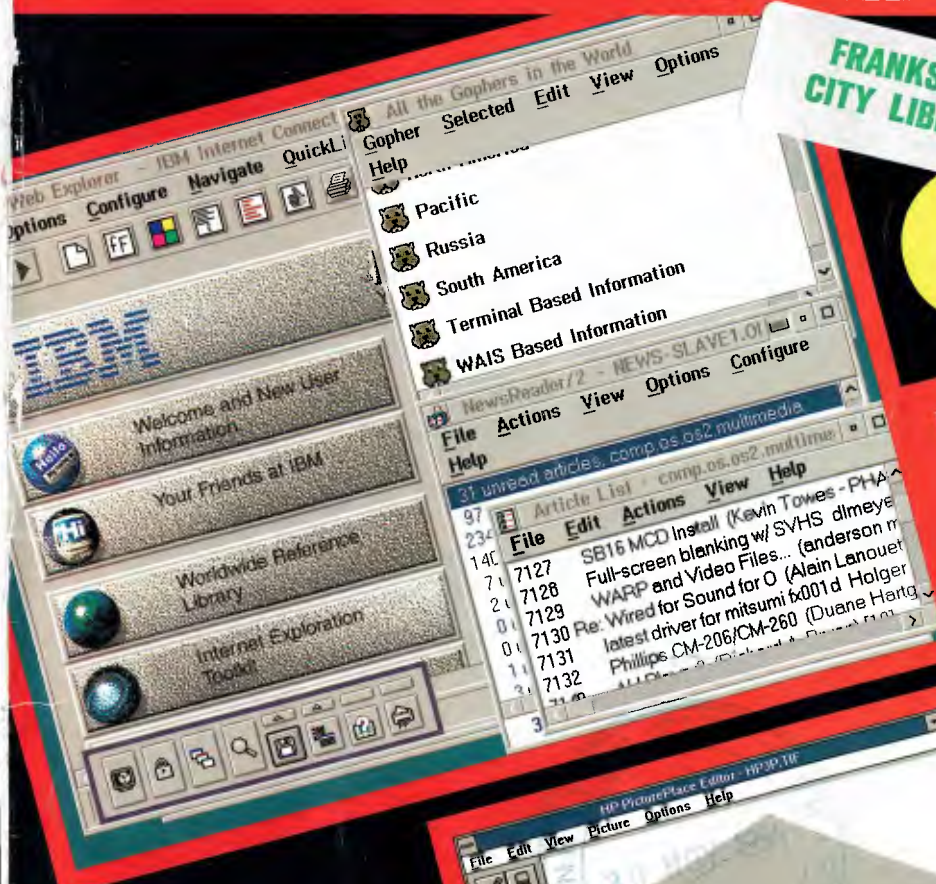
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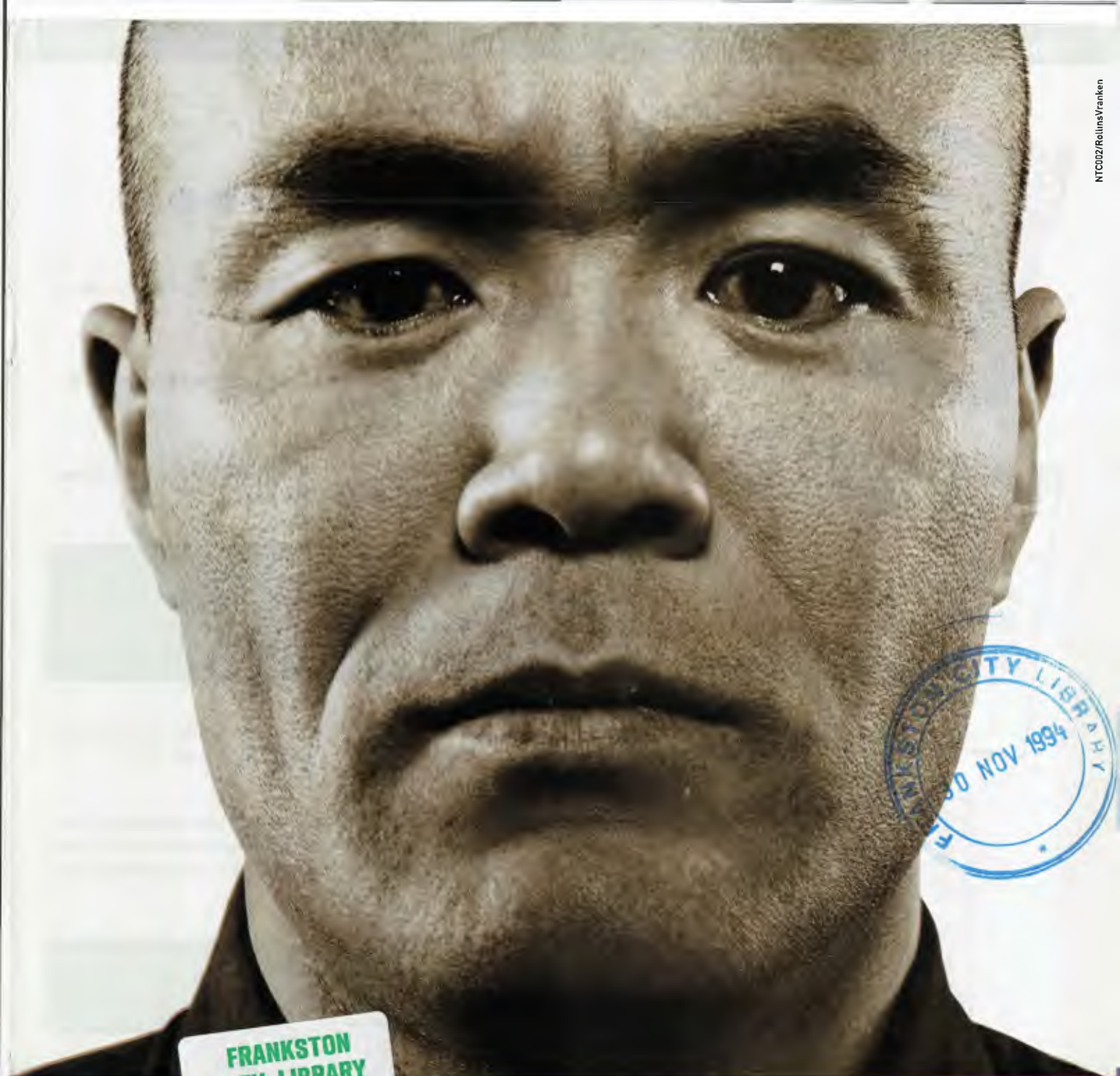
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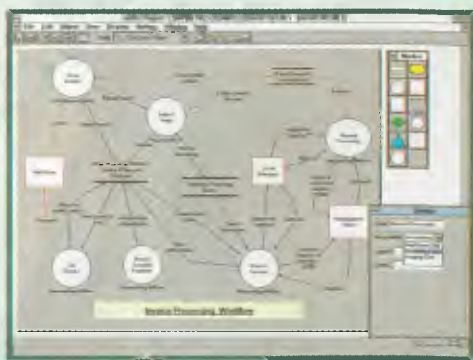
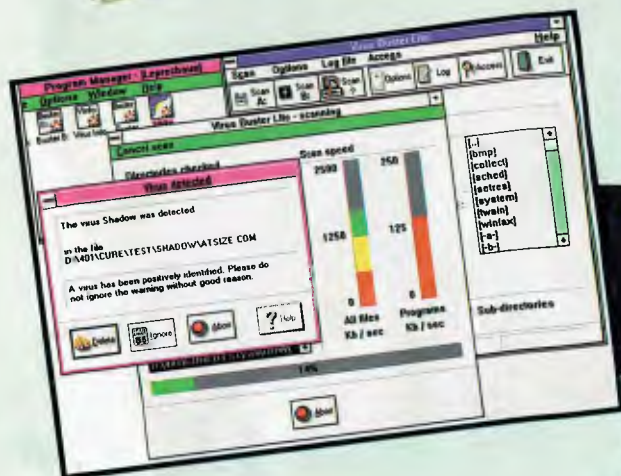
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42 Subscription Offer — Subscribe this month and you could win an Epson Stylus Color Printer, or an Epson Stylus 800+ or an Epson Stylus 400! **Plus:** The first 200 new or renewing subscribers will receive — free — a copy of *The Guide to Computing*.



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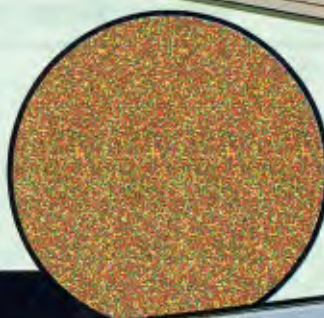
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NEXT MONTH INCLUDES ...

- ▶ Windows and DOS power utilities
- ▶ Claris Works 3: inexpensive integration
- ▶ Windows shareware utilities

Put new life into your old Doom

— see page 91



Merry Christmas!

We've got a collection of Christmas gift suggestions to suit every pocket

With
Jake Kennedy

The best of the season to you and yours — from all of us at *Your Computer*! (See page 8: we've got some great offers in this issue that will brighten anyone's holiday computing.)

We've also got a collection of Christmas gift suggestions to suit every pocket. In 'That's Entertainment', Eric Holroyd recaps his favourite games from 1994 — the hard part will be making up your mind. Anne Glover also has some great edutainment ideas in 'Educational Software' — there's nothing like keeping the kids entertained and knowing they are learning at the same time.

If you're still stuck for ideas, 'Christmas Notions' will help out — whether you're budget is tight or it stretches to \$2000, there are gifts suitable for all there. Those with CD drives often forget just what a vast resource compact discs can offer, regardless of personal interests — 'CD Resource-ry' gives a sample of what's on offer in just the area of music. Check out the dealers in that article and then pursue your own interests.

Back to business: Scanning text and im-

ages has always been a good idea, but until now it has been expensive, fiddly and not particularly effective for small businesses. Well, that's just changed with the release of Hewlett Packard's ScanJet 3p which comes bundled with Calera's award-winning WordScan OCR software. It's an inexpensive solution that will solve many a small business problem — and it can even replace a photocopier! This issue also has reviews of three flowcharting packages. Flowcharts are no longer the exclusive domain of programmers — they have a place in any business that is trying to work at its most efficient. Flowcharters can not only ensure that a business runs profitably, but that it stays that way without continual headaches.

For those who spend their week working 'Alone at Home', a good set of utilities and recovery tools is a must — there's no ringing the MIS department and taking an early lunch. And — next month we look at the current power utilities for DOS and Windows: PC Tools, Norton Utilities and XTree Gold.

After a long quiet spell, IBM is back in the news. Version 3 of OS/2 is out on the shelves now — with one of the simplest installation programs we've ever seen. If you find yourself spending a lot of time working around the limitations of Windows, it's worth checking out OS/2 Warp. Also in the shops is the completely revamped (and simplified) new range of IBM personal computers. These machines are as advanced as any you'll see for some time and show just how seriously the company is taking the home and small business markets.

If you are still keeping your books by hand, this might be a good time to think of moving to a Windows accounting package. Rob Williams covers the pick this month — there's one there to suit every type of small business in 'Windows Accounting'.

And, if you're into graphic design and desktop publishing, you'll want to know more about Corel's powerful suite: check out 'The Corel 5.0 experience'.

December offers

As well as our monthly Sydney PC User Group disk, this month we've got a number of other 'goodies' for you to choose from — turn over to page 8.

Have a happy holiday!

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December offers

The 30-page booklet comes with a disk-based, interactive tutorial

With
Jake Kennedy

In this issue we have such a broad range of 'offers' that I thought I'd take a minute and detail them, to make sure that you don't miss out on any that might be of interest.

Leprechaun Software is well-known here and overseas for its Virus Buster software — this company is one of the most respected in the virus scanning field and its software has been chosen by the US Department of Defence and numerous other large organisations whose well-being depends on the well-being of their computer systems.

Leprechaun has just finished development of a shareware version of Virus Buster, called Virus Buster Lite. It's available to *Your Computer* readers to try — all you need do is dial up the company's BBS on (07) 823 1228 or (07) 823 1229 and download it. Or, you can send \$10, which will be deducted from the registration fee, to cover postage and handling. See page 18 for more details.

If you don't feel comfortable with PC technology, you'll be interested in this month's subscription bonus. The first 200 new and renewing subscribers will re-

ceive, free, a copy of *The Guide to Computing*. It covers the essentials — enough to make you feel comfortable. The 30-page booklet comes with a disk-based, interactive tutorial that teaches the basics. For details see page 41. On the next page is our subscription offer — with the chance to win one of six, new Epson dot matrix printers.

Subscribing ...

Subscribing is the best way to ensure that you don't miss out on the Sydney PC User Group disk offer each month. This month the disk has on it DOSNIX and GET. Both are such useful batch file enhancers that even if you've never written a batch file before they will get you interested.

Batch files are frequently the solution to the old problem: 'If only I could find a piece of software that would ...'. You just write your own (check out your DOS manual to get a feel for what they can do). This month's disk also has on it one of the best screen capture programs around: Screen Thief. It's particularly useful because it is able to capture many

screens when other programs fail — especially games screens. So — now you can prove you've made it to the last elusive level. See 'IBM Underground' on 76.

Curious about how to upgrade your computer system or laser printer? Kingston Technology — the memory upgrade company — has made available to our readers a floppy disk that allows you to plan the upgrade of more than 400 different models of PCs, laser printers and Macs — a tricky business at the best of times. All you need to do is phone or fax your details to them — see page 84 for the details.

Now that Doom II is out, that's no reason to take the original off your hard disk. Marc Young found a collection of Doom editors on his local BBS. All you need to do is send us a formatted, 1.44MB, 3-5-inch floppy and we'll copy four Doom level editors on to it. Deu is a powerful level editor that takes time to come to grips with, but it's probably the best you'll find — it is supplied complete with source code.

DoomCad is a Windows-based editor with a 3D preview mode. Waded is the easiest to use — the program itself does much of the hard work. This new version of Dmapedit isn't crippled like the old one and comes with a complete on-disk manual. See page 91 for details. ■

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Phone hacking

The major phone fraud risks come via standard PABX features

With
Bill Olson

Losing \$25,000 in an hour to phone and voice mail hackers has almost crippled organisations with poorly monitored PABX and voice mail facilities. Deanne Inman, Canberra information technology audit manager for Deloitte Touche Tohmatsu, has been warning local IT auditors about the hidden costs of using open communications. While PABX and voice mail offer facilities such as call forwarding, remote message access and unlimited STD and overseas access, these same features are an expensive burden when hackers or phone freaks

take control. US estimates on voice mail and phone fraud are around US\$4 billion a year and much of this is unreported. Recent examples include a US chemical company losing US\$700,000 in 3 weeks to phone hackers and an Ohio manufacturer losing US\$300,000 over one weekend.

'There are some overseas figures for hacking costs, but in Australia we really do not know because

there are no local telecommunications abuse statistics,' Inman said. 'However the Victorian crime squad computer crimes division believes that one popular abuse is redirecting phone bills. Hackers go into the Telecom software at the exchange then redirect phone bills. One recent instance redirected a hospital's total phone bill to an individual's phone account. The computer crime squad experience is that even when companies are hacked they do not wish to prosecute. One of the reasons is that hacking into a PABX is a state offence, whereas hacking a voice mail system is a federal computer crime.'

Inman said that another popular hacking technique is activating disconnected phones. However Telecom and Optus

now have detection systems for checking on illegal reconnections.

Inman said that earlier this year a 0014 toll free number from Australia to Canada was advertised locally by a Canadian software company. The problem was that the number had a five second gap between when the call was picked up at the PABX and when the toll free extension answered. Australian hackers sent some pulses down the line during those five seconds that put them straight through to the company's unrestricted trunk lines. The company lost \$600,000 in one weekend to the hackers. Fortunately Telecom was able to trace the origin of the calls and there is now a doctor's son in Tasmania facing a \$30,000 phone bill.

Another recent Australian hack was diverting a university's Internet line to an individual home phone for two days.

'The problem is that anyone can ring up Telecom and say 'this is my phone number redirect it to another number' and Telecom will just do it without question,' Inman said. However Telecom and Optus have now been asked to put authorisation codes on redirection requests.

Inman said that the major phone fraud risks come via standard PABX features. One feature called Direct Inwards System Access (DISA) gives employees travelling interstate toll free access to head office. However once linked to the head office PABX, STD calls can then be made with the STD costs being charged to the PABX, not the incoming caller. Hackers use tones to get access to the DISA. Hackers are helped by the big

black market in stolen phonecard information. So-called 'shoulder surfing' is popular at international airports where it is very easy to stand behind a caller to watch them entering access pin numbers for their phonecards.

Remote access maintenance ports on the PABX are also vulnerable to hacking, Inman claimed, because they are open 24 hours a day, not only when maintenance is being done.

While there is no real monetary loss from hacking voice mail boxes, the value is in the loss of company information Inman said. 'If someone hacked into a government department's voice mail system and retrieved some of the information, there could be enormous potential for political embarrassment.' Inman added that in the US hijacking mailboxes is one of the most common hacking techniques. 'They house bulletin board services for black market lost or stolen phonecards, brothels run from them and so do SP bookmakers. A whole variety of illegal activities can be run from your voice mail system without you even knowing about it.'

While the security problems for analogue mobile phones are well known, the biggest risk for voice mail is executives trying to retrieve their voice mail over a mobile. Eavesdroppers can hear the mailbox number and the password.

Having remote access to voice mail allows remote system maintenance, however hackers use remote maintenance to set up illegal mailboxes. The remote access number is usually a standard type that gives an automatic response. One safeguard is forcing the caller to identify themselves before acknowledging the incoming call.

The PABX is still the critical point for organisations using both voice and data, Inman claims. 'Interconnectivity has



I know of three government departments in Canberra that have had their voice mail systems hacked and needed a lot of work to secure those systems — Deanne Inman

CHRISTMAS AUCTION

Christmas is closing in and while the federal government has plenty of old PCs, it does not play Santa Clause with them. So where do all the old government computers go? They are auctioned regularly in Canberra, but these auctions are no place to find bargains. Bidders go far too high buying old machines and sometimes what seems like a bargain needs expensive or unobtainable spare parts — like old laser printers that need new drums costing more than the auction price.

meant voice and data both being routed through PABXs, but when the PABX goes down everything goes down. So it is vital that businesses have direct lines in as well as the PABX.'

Faster CompuServe

CompuServe recently pushed for new members in Canberra where there is now a 9600 baud link. CompuServe manager Stuart Broad says there are now over 2000 services on CompuServe used by over 16,000 Australian members with e-mail the most widely used service.

A new CompuServe feature is access to Internet Usenet Newsgroups. Also by the end of 1994 commercial CompuServe users will have high-speed dedicated Internet access.

Next year Internet World Wide Web and Gopher servers will be available to CompuServe members. Broad claimed that the biggest interest groups are for hardware and software vendors with companies like Microsoft having 34 forums on CompuServe. Commercial technical help is also available from Epson, Adobe, Aldus, Borland, Lotus, Microsoft, Novell, Symantec and others.

CompuServe offers Windows users the CompuServe Information Manager that takes most of the hard work out of learning to use CompuServe. The aim is to gain maximum access in the least possible time so as to save online connect fees.

CompuServe is currently testing a 28.8 kilobyte per second ISDN access for Australian members. *(In January, YC will have a new column covering the Forums on CompuServe.)*

Q/Plan for software

Peter Hill, the team development leader for Q/Plan from Megatec, says that software quality management will cut down extra costs after installation. Megatec produced Q/Plan initially for its own use and then decided to sell it to other users.

'The core comes down to a payback, whether you are developing software or buying it. The actual development of a system and purchase costs only represent about 25% of the total cost over the system's life.

'And 25% is a high percentage because I worked in one situation where the cost of developing the system was \$1 million

while the ongoing cost was \$8 million!' Spending an extra 15% up-front can save half the ongoing costs, Hill said.

Q/plan is a set of four manuals or copies on disk allowing methodical planning for introducing and using quality software and hardware. Q/Plan helps the average IT department which now spends 75% of its time on maintenance and enhancements.

Hill claimed that any organisation wanting to start from scratch on a quality management system will need a quarter of a million dollars. The Q/Plan manuals provide a template from which to work, saving both time and money.

Q/Plan is being distributed by Price Waterhouse and also covers risk management and disaster recovery. For example, how to have a recovery plan ready if computers are burnt, flooded or stolen. US figures show that an organisation that loses its computer system without a backup is usually out of business within 30 days. ■

Q/Plan manuals provide a template from which to work, saving both time and money

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INDUSTRY UPDATES

Industry Updates is provided by Newsbytes, the world's largest independent network of computer journalists

Designers endorse Fast drive interface

► Optical character recognition (OCR) and document management specialists, Caere and privately held Calera Recognition Systems, have announced a plan whereby Caere will acquire Calera. Both companies say the plan at this time is to keep both Caere's OmniPage and Calera's WordScan as separate products for the foreseeable future.

► Instead of shooting IBM's launch of OS/2 Warp down in a war of words, as many would have expected, Lotus Development, in the UK at least, has welcomed the new release of the operating system, saying that it expects version 3.0 of OS/2 to broaden user interest in native OS/2 applications.

► Microsoft has announced an add-in product for Access 2.0 that automates the conversion of an Access database for use with Microsoft SQL Server. Microsoft says that the Access Upsizing Tools will convert a portion or all of an Access database for use with SQL (structured query language) Server. The converted database is then accessible from Access as the client and SQL Server as the server platform.

Support for the Fast ATA and Fast ATA-2 disk drive interface standards, which were developed by Seagate Technology earlier this year, continues to broaden with the addition of key PC systems, component, and software suppliers.

Seagate has taken an active role in establishing standards for the storage industry. Brian Dexheimer, director of desktop and mobile marketing, told Newsbytes that the ATA-2 standard came out of the small form factor committee that drives most of the interface standards for the storage industry, where Seagate played a key role.

Fast ATA and Fast ATA-2 products feature advanced data transfer capabilities ideal for the increased bandwidth provided by PCI (Peripheral Component Interconnect) and VESA (Video Electronics Standards Association) local bus systems, theoretically up to 132MB per second, while conforming to the widely-used AT Attachment (ATA) interface standard. The ATA/ATA-2 interfaces are

capable of data transfer rates up to 13.3MBps and 16.6MBps, respectively.

The cabling for ATA/ATA-2 is identical to the ATA IDE standard. ATA, which is higher performance than ATA IDE, is available for VLB and PCI. It is reportedly well suited for multimedia applications, which require higher data transfer rates to move graphics quickly enough for

playing full-motion video, displaying high resolution still images, generating fractal images, and so on.

As systems manufacturers implement Fast ATA and Fast ATA-2, Dexheimer says end-users can begin to reap the benefits of the advanced technology transparently, because special system configuration and software drivers are not necessary for most applications.



Brisbane's Computer Expo has outgrown its RNA venue and next year moves to the new Convention and Exhibition Centre which will allow Queensland Exhibition Services to double the size of the Expo presenting sections on Business Computing, Home Computing and Office Technology. Next year, Your Computer magazine will be presenting awards at the Expo in both Home and Business categories

DOS/Windows emulation for 68040 Macs

UK-based Insignia Solutions has announced it will shortly start shipping SoftWindows for the Mac, a package which allows high-end 68xxx-based Mac users to run standard-mode Windows and DOS applications at the same speed as a 25MHz 80386SX PC.

According to David Angwin, Insignia's European marketing manager, the new package runs around 30% faster than SoftPC with Windows, which SoftWindows replaces in the channel.

'SoftWindows for the Mac is the most cost-effective PC compatibility solution for desktop Macs such as the Performa 630 series, LC and Quadra computers and is the only solution for the line of 68040-based Powerbooks,' he explained. 'It enables corporate, educational and small office customers to run off-the-shelf, custom, and mission-critical DOS and Windows applications at very productive performance levels,' he added.

Newsbytes asked whether Insignia will be producing a version of SoftWindows for the 68020/30-based Macs.

'The problem here is that, while our SoftPC products already address the needs of these users to run DOS applications, running Windows is a pretty heavy task for a Mac to do.

Windows on a 020 or 030 Mac is simply not fast enough for most users, so we don't recommend it,' he said.

This appears to rule out the possibility of seeing Windows on a 020 or 030 Mac? Angwin replied that SoftPC is capable of supporting Windows, but only very slowly. 'We have got some users that report using a fast 030 Mac and claim they run Windows effectively, but for most users it's not fast enough,' he told Newsbytes.

The secret of SoftWindows for Mac is that, unlike some of the competing DOS/Windows emulations for the Mac platform, the package comes with licensed copies of both DOS and

Windows, as well as the NetWare client software.

A key feature of the package is an improved install, which Insignia claims allows configuration of the PC memory and hard disk size during installation, and minimises the time needed to configure the application. In addition, the software can switch instantly between the Mac's System and the SoftWindows DOS/Windows environment, with support for bi-directional copy of text and graphics.

For more information, contact Insignia Solutions, UK (494) 459 426, fax (494) 459 720; electronic-mail on the Internet david.angwin@isltd.insignia.com.

David Swann of Melbourne's Swann Computers has good reason to look pleased with himself — the company has just taken delivery of the single biggest order NetComm has shipped to a private company. Plus Swann Computing has opened a new multimedia showroom in South Yarra where it has such products as Digital Composer, TextMaster and Fast Teletext cards on display



► GEnie, which has been offering Internet information and document retrieval through its Internet Roundtable, has announced plans to deliver Internet access to its members.

► IBM and Motorola have achieved 'first silicon' on the PowerPC 620 microprocessor. 'First silicon' is the industry term that refers to accomplishment of development and fabrication of a product. The PowerPC 620 is the first 64-bit microprocessor for the PowerPC architecture and is compatible with current 32-bit applications.

► Mitsubishi Electric plans to develop a technique for giving workstations supercomputer power by March, 1995. The company will use a neuro processor board, developed by its semiconductor lab. The board is equipped with four digital neuro chips and achieves a peak performance of 2.88 gigaflops (floating point operations per second) when running at 30MHz.

► IBM personal computers based on the PowerPC processor line, originally slated for launch in October, will not be generally available until 1995.

► Nintendo has formed an alliance with Matsushita Avionics that calls for Nintendo to provide as much as US\$80 million worth of entertainment and information services to Singapore Airlines for use on their flights.

Computer tops in chess

A chess-playing program outscored human grand masters for the first time in the fifth Harvard Cup Human Versus Computer Intel Chess Challenge at the Computer Museum in October.

'We had a little history made,' museum spokeswoman Gail Jennes told Newsbytes. WChess, a program written by David Kittinger of Mobile, Alabama, won four of its six games and the other two were draws. That gave the program about an 83% score over the two-day tournament, better than that of defending Harvard Cup Champion Joel

Benjamin, who scored highest among the human grand masters with about 81%.

However, humans still outscored computers over all, with six top US chess players scoring 29.5 points versus 18.5 for the eight computer programs. All but one of the human players scored better than all the competing computer programs except WChess.

The computers did significantly better than before in this year's competition, Jennes said. She attributed this partly to more powerful hardware — all the programs ran on

Intel's Pentium processors this year — and partly to improvements in the programs themselves.

Loss of the top-scoring position to a computer program was the second setback in two years of the tournament for human chess players. Last year the M-Chess Professional program defeated the reigning US chess champion. This year, M-Chess Professional and Socrates — the top scorer among the computer programs in last year's Harvard Cup — tied for second among the computer programs with 2.5 points out of six.

► Microsoft says it is making the core networking technology of Windows 95 available to other network operating system software companies. The company says it has provided no-cost licences to the technology to Artisoft, Banyan, Digital, Novell and Sun Microsystems.

► Media Vision has announced that its 11-member Unsecured Creditors Committee has agreed to support the principal terms of a reorganisation plan. Newsbytes has learned the company intends to file this plan within the next week with the US Bankruptcy Court in Oakland, California.

► IBM plans to license to Toshiba the PowerPC RISC (reduced instruction-set computer) microprocessor and AIX, an IBM version of the Unix operating system. The third Japanese company after Canon and Hitachi to have obtained a PowerPC licence from IBM, Toshiba will develop a mid-range Unix server within two years in an attempt to strengthen its open system operations.

► Motorola has announced it will market a line of RISC (reduced instruction-set computer) symmetrical multiprocessor personal computers based on the PowerPC technology the company helped develop.

IBM CHANGES STRATEGY

With its original 1981 PC, IBM defined the whole personal computer industry. Unfortunately, over the last few years IBM's position in the market has been less easy for consumers to see. Now the company has redefined its position, with four clearly defined lines, each of which has special appeal to a particular market segment.

The new range of IBM personal computers starts with the IBM PC Servers, a range of high-performance network servers. There are the IBM PCs, a range of desktop personal computers for the corporate and business market that reinstates the well-known and accepted tag. It also is now a wider, but simplified, range to minimise confusion and ease the making of purchase decisions. The ThinkPad line covers a wide range of laptops that IBM labels as 'The Experts Choice'. Finally there is the Aptiva line of desktops, aimed at the general consumer market.

Announcing the four new brands, Andrew Sotiropoulos (general manager of the IBM PC company in Australia) noted that in the USA the top six manufacturers have no less than 48 brands and 400 models. This can become very confusing, and IBM perceived a need to more clearly target specific markets. By announcing the four lines, each with its own identity and purpose, IBM believes that it will remove the 'clutter' while continuing to offer a full range.

While the IBM PC Server and IBM PC ranges have an easily identified purpose, and the ThinkPad range has developed an identity of its own, the new Aptiva range has a name with no particular meaning. IBM does believe, however, that with marketing the name Aptiva will become synonymous with 'PC for consumers'. All products in the four ranges will be made in Wangaratta except for the ThinkPads which are made in Japan.

Sotiropoulos claimed that with the new ranges they would offer the 'best value for money' choice within the brands. There would be customer focus centred around the four brands. In addition there will be service offerings ranging from HelpWare phone support and warranty service through to an international warranty that is important to companies and mobile professionals.

The IBM PC range has two series, the IBM PC 700 Series and the IBM PC 300 Series. Processors range from 486 SX/33s to 90 MHz Pentiums. Most models in the range use an ISA bus, while some have MCA. In addition some models have VESA local bus while the remainder have PCI. Standard memory is 4MB or 8MB, with expansion up to 128MB. There's enhanced IDE, with the ability to have up to four hard drives or other IDE devices. SCSI is also available.

All the IBM PC series are part of a simplified product line with a new look, design and feel. There are new security features, including the ability to detect and report

if the case is opened, and the ability to access hardware configuration information across a network — right down to serial number level!

Announcing a new top-end ThinkPad, and another pen-based ThinkPad, Michael Nash (the ThinkPad brand manager) believes that now more than ever the new products position the ThinkPad as 'The Expert's Choice'. There's the new 755 CD, complete with an integrated double-speed CD drive, a DX4/100 processor and a black matrix array screen with more colours, less glare and better visibility in bright light. There's also the 755 CE, the same as the 755 CD but without the CD-ROM.

Both have PCMCIA, improved TrackPoint, and integrated infrared. A Digital Signal Processor (DSP) offers a hands free telephone with digital phone answering machine, a 14.4k modem (upgradable to 28.8k), and sound. Both the machines have up to 810MB hard drives, and have standard RAM of 8MB that can be expanded to 40MB. Battery life is now claimed to be up to 9 hours. Another new model in the range is the ThinkPad 730T. It is a pen-based tablet



that has been ordered in large quantities by Telecom and others.

Simultaneously with the announcement of the new branding strategy, the new machines in the IBM PC series and the new ThinkPads, new network servers were announced by Peter Chia, the IBM PC server product manager. He stated that the line provides a range of 'servers by design' with a new identity and strategy. The existing EISA-based server has been renamed the Server 300. The line has been simplified with three different processors in array and non-array models.

New is the PC Server 500. With a 90MHz Pentium and 32MB of RAM. It has 8 MCA slots and bays for 22 hard drives, of which 18 can be hot swappable. RAID is supported, with RAID-0, RAID-1 and RAID-5. ServerGuide eases network operating system installation, with help for installation of LanServer 3.01, Netware 3.11 and 3.12, plus a range of network utilities.

With prices for an IBM PC system unit starting at \$1995 plus tax (extra for monitor and software) and the Aptiva range starting under \$3000 including tax, monitor, operating system and applications software, IBM is making a concerted attack on the consumer market as well as the corporate and government market. IBM also believes that the ThinkPad range will be a hit in a rapidly expanding market segment, as will the IBM PC Server in that important arena.

By creating four clearly defined lines, each with a distinct and targeted market, IBM has redefined the IBM PC and ThinkPad, while introducing two new and promising identities in the IBM PC Server and Aptiva — *John Hepworth.*

How easy is it to operate the new HP ScanJet 3p and IIcx scanners?



Affordable



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Just call up the scan icon on your PC, double click your mouse and you're immediately scanning. It's that simple. This new, easy one step operation isn't the only popular feature shared by both the new HP ScanJet scanners. They can both also make copies and are able to send faxes as well as scan. And they both have superior new software and hardware, without any increase in price.

So where do they differ? The HP ScanJet IIcx is our top of the range colour scanner with 400 dpi and 1600 dpi enhanced resolution. Just the thing if you're doing desktop publishing or working in graphics. The HP ScanJet 3p is an economical mono model with 300 dpi and 1200 dpi enhanced resolution, ideal for general office use. So no matter what your scanning needs, HP has the answer.

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► Changes are inevitable after a company is bought-out and no exception is made for Software Toolworks, which was recently purchased by Pearson, a London-based international media group. Effective immediately, Software Toolworks, known for its Mavis Beacon typing instructor and its Miracle Piano teaching system, is now Mindscape.

► Fujifilm's UK operation has announced a high-density recording media for 3.5-inch floppy disks with a storage capacity of over 100MB and data transfer rates over 30 times faster than the industry standard 2MB 3.5-inch floppy.

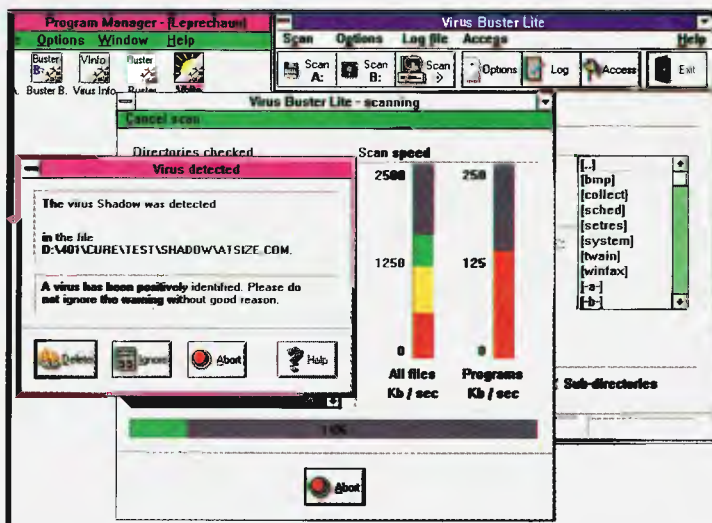
► The NSW state college system TAFE has introduced a course for teleworkers. This coincides with federal moves to allow public servants to negotiate teleworking jobs. Federal money is behind the new course.

► The Internet Shopping Network (ISN), a subsidiary of Home Shopping Network (HSN), has hired Macromedia to help develop a front-end based on Macromedia's recently released Director 4.0. The interactive shopping software should be ready to ship early next year.

Brisbane's Leprechaun Software has just released a Windows shareware version of its award-winning Virus Buster program — Virus Buster Lite. The new program takes the trouble out of checking every floppy disk and new program: with VB Lite resident in the background, virus checking is just a mouse click away. Leprechaun is offering YC readers the opportunity to try VB Lite for only \$10 — which will be deducted from the \$25 registration fee.

Registration gives you both DOS and Windows versions without the reminder screen and the full Virus Buster manual.

To obtain your copy of Virus Buster Lite, send \$10 (no cash,



please) to Leprechaun Software, PO Box 826, Capalaba Qld 4157 — for further information, (07) 823 1300, fax (07) 823 1233.

Alternatively, if you have a modem, VB Lite can be downloaded from the Leprechaun BBS, (07) 823 1228 or (07) 823 1229.

Protect your PC

You can insure against theft of your computer, and even against it burning in a fire, but what about those subtle losses of data that can cause so much trouble? Uninterruptible Power Supply (UPS) manufacturer Emerson calls this problem 'computer Alzheimer's'.

Even slight disruptions to the power supply — spikes or surges or blackouts — can cause a loss of data or an interruption to your work, according to Matt Rieck, national manager of Emerson Micro UPS systems in Australia. Even if the disruptions are momentary, such as the load of a nearby motor starting, they can induce the computer Alzheimer's symptoms that are sometimes difficult to pin down or cure.

Rieck said the physical damage in a PC or network could cost \$100 or \$100,000 to fix, but the intellectual property damage was much harder to put a price on.

'You have a 486 and you've been working for a month on a complex project. You've spent hundreds of hours programming in the informa-

tion, laying it out, fine tuning it, and then, bingo! It's all gone haywire,' he said.

'You try to sort it out, but nothing seems to work. You get angry and frustrated and in the end call in the experts. The service guy finds nothing wrong with the system and the software seems to have been corrupted. He can reload the software, but what about your project?'

He added: 'Even the disk medico can only get back fragments of your precious work. He tells you it was a spike and you can't stop spikes on the mains. He says, 'Better get a UPS.'

A UPS consists of an alternative

power source — usually a battery or bank of batteries — and the necessary electronics to convert this low DC voltage into the higher AC voltage needed by the equipment. It switches in as needed, effectively absorbing small interruptions and spikes, or replacing the mains supply in a blackout, or when someone trips over the power cord.

While most UPSs do not have sufficient power to run a system for more than a few minutes, this gives the operator time to shut things down in an orderly fashion. Some are even smart enough to shut the system down if there is no operator available.

AUTOCAD RELEASE 13

Autodesk began shipping AutoCAD release 13 DOS and Windows in late November, although the official Australian release is slated for some time after that.

'AutoCAD release 13 is the most significant version of AutoCad to date and represents a substantial upgrade from AutoCad release 12 in terms of power, functionality and product architecture,' a spokeswoman said.

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- Identifies which mode is best, Standard or Enhanced
- Pinpoints the optimum driver for your VGA card
- Optimizes and frees fragmented memory
- Analyses and suggests the best Windows setup for your system

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- Mouse initialisation and interrupts
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PC Computing

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PC Computing

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Philips confident on CD-I

Philips is still ebulliently predicting that sales of its CD-I (Compact Disc Interactive) machines will top the million mark this year, despite reports of cut-price bargains to be had on CD-I technology across Europe, where the technology has been most accepted.

According to John Hawkins, marketing manager for Philips CD-I systems, sales are going so well that the company is working on a PC card for

CD-I, for introduction early next year. The card will operate in a manner similar to CD-ROM and allows PCs to interactively control the CD-I drives, Hawkins said.

Now for the bad news — CD-I for PCs is likely to cost in the region of \$1300 when it first appears, as compared to price tags of about one-third of that for CD-ROM drives. This perhaps explains why Philips' executives are keen to stress that CD-

I and CD-ROM technology are not in competition with each other — CD-I is being billed as a home entertainment medium, while CD-ROM is more aimed at the business end of the market, notably in archive data retrieval.

Industry watchers are incredulous that Philips can suggest that a \$400 unit is aimed at businesses, yet a \$1300 technology is for the consumer side of the market.

► Seiko-Epson has developed Japan's first robot program development software for Windows 3.1. SPEL for Windows, which will be released this month, can run on any machine running Windows 3.1, uses Seiko-Epson's SPEL robot programming language, and has a built-in reference manual and error detection functions. The program, which also features program management, teaching and task management functions, is priced at 98,000 yen.

► The US Justice Department will not challenge Intuit's proposed acquisition of Parsons Technology, after Intuit promised to spin off Parsons' tax preparation software. Intuit, which developed the Quicken financial management program and acquired Chipsoft and its successful TurboTax tax software last year, proposed to buy privately-held Parsons in August for US\$64 million in cash and stock.

► Delrina, whose products are distributed locally by Melbourne-based Bitware, has signed a licensing agreement with Reach Software, the Sunnyvale, California-based maker of WorkMan work-flow management software. Delrina plans to incorporate underlying technology from WorkMan into future releases of its FormFlow forms management software.

Helix cloaking deal

Symantec has announced an agreement to incorporate Helix Software's cloaking technology into its DOS memory resident utility packages. Meanwhile, Stack has announced it will bundle the software with its Stacker disk compression software.

Programs written specifically to take advantage of Helix's multimedia cloaking technology can reportedly load into extended memory without using any conventional DOS, HMA, or upper memory at all. On multimedia systems, because so many drivers typically need to be loaded, there often is not enough upper memory available. As a result, the user ends up losing precious conventional DOS memory.

'As users demand more functionality from their software, the size of the programs needed to provide these features increase,' said Joseph Fusco, Symantec's business unit director for the Peter Norton Group. 'We want to provide the most advanced features to our users without having to overload their memory. By using Helix's Cloaking technology, we will be able to provide powerful features and yet use only a small amount of conventional memory.'

Said Mike Spilo, president of Helix Software: 'With the power of protected mode, Cloaking allows drivers to run faster and more reliably, and to use far less memory.'

Multimedia Cloaking uses 32-bit technology to free up extra memory

by moving system drivers to a protected area of extended memory. Helix's technology operates with all major memory managers, including MS-DOS and Novell DOS, Netroom, Qemm, and 386Max.

Even if a memory manager is installed, multimedia cloaking can reportedly free an additional 80KB in three speed-enhancing ways: by using a powerful mouse driver which saves 20KB and works with any Microsoft, Logitech or compatible mouse; by using enhanced CD-ROM Extensions which saves 30KB with an improved version of Mscdex, licensed from Microsoft

(CD-ROM drive software), which runs games and entertainment software faster than before; and by using a fast disk cache which saves 30KB while improving system performance and safely accelerating CD-ROM, hard, and floppy drives.

Stac Electronics, a major supplier of compression products, has also announced Multimedia Stacker. Optimised for speed and memory, it reportedly gives users, not only more disk space, but also more memory for the user's multimedia-based systems, by including a free copy of Helix Software's Multimedia Cloaking.





Write to:

Jake Kennedy
Write Bytes
Your Computer
PO Box 199
Alexandria
NSW 2015
Fax: (02) 353 0720

WRITE BYTES

**Here's your chance to air your view or gripe about
the personal computer industry, or to ask about a
problem you've been unable to solve**

Hidden costs of computing

It all seems so cloudy now, but it must have been about a hundred or so years ago that I embarked on a mighty quest. Having spent several weeks researching the task, I set out and returned home the same day totally exhausted with my

pride, sanity and ego barely in tact. I had fought well and

was triumphant in my quest for a computer. A Commodore 64.

My spouse eyed it with great suspicion, and contempt, and often mumbled about how the money could have been better spent on

a new bedroom suite.

Many months had passed, and I was becoming quite proficient at programming in Basic. I had written a program for our local BMX club which would perform lane and gate draws for the riders and tally their points at the end of the race meeting. It was a huge success and I was a celebrity. So why was my wife so unmoved and unimpressed?

Since I was the only one in our circle of friends with any computer knowledge, I considered I should be

the focal point whenever they visited. I could always turn a conversation about animal husbandry or childbirth into computers. Boring? Well I didn't think so. After all, if I thought I was so wonderful, why didn't everyone else? My wife certainly did. She often remarked that she suffered more than I did. Whatever did she mean?

Like I said, that was eons ago, way back in 1983. However, the 'novelty' lasted about five years when the wife gave me the ultimatum: 'Me and the kids or the !@#\$\$* computer.' After lengthy consideration, I began to spend less and less time at the keyboard until I eventually won her faith and trust back.

1993 and the kids are older and my interest in computers is stirring once again. By this time the C64 is dead and buried and the stark realisation has hit me. I'm a computer has-been! A bitter pill to swallow. Time to upgrade. To what? The choice this time is far more difficult. I finally settled on a 486SX multimedia unit and began the arduous task of getting back into the swing of things.

DOS was the obvious choice of an

operating platform but my patience would wear thin of having to start the learning process all over. Windows would do the same thing with less effort, and brain-power, for what I wanted to do. Here lies the fundamental argument between DOS and Windows users. It's a fair bet that the DOS diehards once did their own programming in the 'good old days', probably in Basic or dabbled in the assembly languages, and are very reluctant to let go of their roots. In their opinion, they are the achievers. The Windows users are a new breed who have had little or no programming experience and couldn't care less. After all, they bought a computer to make things easier.

I'm still in transition mode. I'm a Windows user who still dwells on the past. A no-mans land. I know I'll be a full-blown Windows user one day. Like I said, it seems to make things easier and places a far less strain on the martial bliss I enjoy today by not keeping me up all night learning and experimenting with a foreign language.

The wife (remember the wife?). Well she has ugly memories of the past and is happy she finally got her



New Technology Printer Sharing – now the simplest is also the best

If you have 1 or more printers which you'd like to share between a number of PCs, then it's worth doing properly the first time. You'll save time and money on installation and you won't be plagued by after sales problems. What you'll get instead is a big gain in productivity with the fast and efficient Super Qs.

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Plug transmitters into the parallel printer port on your PCs and receivers into the parallel ports on the printers. Then connect them to a Super Q with up to 300 metres of ordinary 4 wire telephone cable per connection. You can do it yourself.

SIMPLE TO USE

To your computer it still looks like it has a printer plugged directly to it just like before; there is no reconfiguration.

GREATLY IMPROVE PRODUCTIVITY

Because everyone has their own full parallel speed connection direct to the Super Q. And because the Super Q can have up to 8 Meg of buffer, everyone can send at the same time even if the printers can't keep up. This is terrific if anyone is doing graphics work which would quickly bottleneck other systems.

ULTRA RELIABLE 'TFT'

TFT is the transmission mode between the Transmitters, Receivers and the Super Q. The parallel data is transformed into a 'Network Like' data stream which is immune to electrical interference and ground currents. No problem with running cables near power cables or electrically noisy equipment with TFT. It also provides a 400VRMS electrical isolation between all connections which means you are not introducing a potential hazard by connecting many computers and peripherals together. These are key advantages which no other printer sharing system has and although TFT is technically sophisticated, to the user, the system is simple and trouble free.



The inventor of 'TFT', the advanced new technology used in the Super Q Printer Sharers – Yukka Tuisku

Winner of the
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Hardware Commendation



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The Super Qs are low cost and can integrate work groups without all the setup and support requirements of networks. For PC co-ordinators this is a big plus; you can confidently send Super Qs to remote sites because the users can easily do the installation themselves.

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These are the *real* hidden costs of computing.

Wayne Webb

Brilliant Tech Tips

I have just purchased and read the second edition of your magazine *Tech Tips*, which I found to be 'brilliant', easy to understand and informative. I am by no means a computer expert so it is good to see a magazine that I can understand and programs that I can experiment with.

In regards to the tip on page 54, 'Enlarging your RAM drive', I would like to add some solutions to the program for users of DOS 6.2. I have found that it all works well until the stage where you have to edit the autoexec.bat file. There are some additional switches that need to be added before it will copy and mount the compressed RAM drive.

Listed below are the additional switches for the autoexec.bat, that are needed to accomplish this:

```
COPY C:\DOS\RAMCVF000
D:\DBLSPACE.000
DBLSPACE /MOUNT=000 D: /
NEWDRIVE=1:
```

Again they will have to substitute the required drive letters. It seems that when they upgraded DOS 6.0 to DOS 6.2 some of the commands and switches changed with it (as normal).

Andrew Blunt

DOS user

I use DOS as my primary operating environment. I see no advantages to me in switching to Windows, although I have just installed Novell DR DOS v7 for its multitasking. DOS programs seem quicker to run [is this true?], and since I switch my computer (AST PowerExec 486/33 with 8MB RAM) on and off during the day, I don't want the long start-up routine to actually get into Windows. I also like the command-

line! I have no experience with GeoWorks or OS/2.

The software I run includes OSCS Quikmenu III (for its GUIs), Borland's Paradox v4.5, Microsoft Word, Central Point's PC Tools Pro v9, and Locomotive Software's Script 2 (a UK word processor which I carried over from my Amstrad PCW).

I would be grateful if you could review DOS-based genealogy programs — both shareware and commercial. I have tried Relatively Yours (an Australian shareware program, written in Clipper) but it is very expensive to register.

Many thanks for asking for something other than Windows!

Paul Walker

Yes — DOS programs like those you are using will generally run faster than their Windows equivalents. This is because of the massive overheads that Windows programs carry (most of that overhead is, of course, Windows itself). However, as well as chewing up resources, those overheads also add a great deal of functionality to programs — easy cutting and pasting between documents is the most obvious; OLE and the way in which printers need only to be installed once for all Windows applications are two others. But, as I've said before, unless you have a specific need for Windows applications, don't use Windows. (We use a combination of DOS and Windows here at YC. WordStar 3 (DOS) for word processing not only because we've used it for years, but also because it allows us to write and edit without ever having to lift hands from the keyboard, and Norton Commander for file management because of its speed, ease of use and low overheads. In Windows, we use PageMaker, Picture Publisher and Corel Draw because there are no equivalents in DOS.)

Perhaps other readers could suggest other shareware or commercial genealogy programs

Your Computer Letter of the Month

The December Letter of the Month, 'Hidden costs of computing', came from Wayne Webb — who will receive a complimentary 12-month subscription to *Your Computer*. Each month we will award a complimentary subscription to the most witty, interesting, informative or timely letter received.



that we could include in an article. Please don't send the programs, only a brief description, and details on where you got it; if it's shareware you obtained from a bulletin board, include the name of the archive file(s).

GOCIS

Having read Martin Southgate's review of CompuServe (page 38, October '94) and having used the service myself for over 12 months, I can only agree with his comments. Although being expensive, especially for us STD users, if you plan your online time carefully, it can be extremely rewarding.

A recent bonus to my shareware library is a program called GOCIS (for Windows) distributed by Logix Systems. This program purported to automate online time within Compuserve thus dramatically saving costs. Not one for believing what I read, I immediately downloaded it from one of my local BBSes and installed. My first surprise was the astounding interface (GUI) which made me think this program was going to be more than just another shareware also-ran.

Installation was easy and faultless, configuration was completed with the aid of excellent online help and a comprehensive 98-page manual. After selecting a couple of the included Forums, composing a short test E-Mail message to myself the automation began. I sat back in total amazement as GOCIS rang, logged on, sent my E-Mail, joined Forums, collected message headers, searched for files (using my defined search patter) then logged off. A process that usually had taken me between 15 and 20 minutes was achieved in a blistering 5 or 6.

Having collected an impressive amount of information, I could then sit back with my ever present Star

Trek coffee cup and browse at my leisure. No more panicking and clock watching, no longer was I going to ignore the knock at the front door during CompuServe time.

I have used GOCIS to send and receive E-Mail, read and compose Forum messages, search for and locate files with Forums. This program has dramatically cut the cost of using CompuServe for me and has worked faultlessly from day one. Support for the program is available via CompuServe and this is one shareware program that is well worth its registration — US\$59 (plus postage and handling).

The program takes up about 2MB of disk space and is user configurable from com1 to com4, a few US modems are supported. However entering your own initialisation string in the setup is child's play. And no, I don't work for Logix Systems, but this program has saved me, and could save you, a lot of money.

Steven Mika

Illawarra User Group

I am writing to you on behalf of our non-profit organisation. I know that you have a section in your magazine devoted to National BBSes and was wondering that if you had a section for User Groups that we may possibly be included.

Our details are as follows:

Name: Illawarra IBM PC User Group
Contact: Chris Micallef, (042) 744 116
Meetings: Second Friday of each month

Place: Unanderra Community Centre
If you have any questions or require any more information please contact me.

Chris Micallef
Publicity Officer

Illawarra IBM PC User Group
We would be happy to publish the details of any user group: send them in. ■

Queensland Expo winners

The winners of the subscriptions drawn at the Queensland Computer Expo were — *Your Computer*: Len Waddington, Mackay Qld; *Electronics Australia*: Jeff Smith, Bundaberg Qld; and *Australian Small Business*: Nigel Kentish, Quirindi NSW.

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Hewlett Packard ScanJet

Until now, scanning has been too fiddly and expensive for most small businesses, but, as Trevor Sheffield discovered, that's all changed with HP's new scanner.

The need for some type of scanning capability in the office or home is increasing. Anyone with a fax modem will already have found that there is a problem in sending a fax of anything that is not computer based. The best type of scanner, for a whole host of reasons, is a flatbed scanner. Until recently the cost has been prohibitive, but Hewlett Packard has just released a new desktop scanner with an attractive price.

The Hewlett Packard ScanJet 3p scanner is a desktop flatbed grayscale scanner.

Physically, it is *small*: 405mm deep, 286mm wide and 79mm high. It weighs in at 6kg and comes complete with SCSI cable, terminator, interface (SCSI) card and power cord.

It has an enhanced resolution of 1200dpi (300dpi optical) and can scan to a maximum size of 215mm by 297mm. An automatic document feeder is available with a capacity of 20 pages. The document feeder will handle pages from 182mm by 257mm to 215mm by 365mm.

The ScanJet 3p uses HP AccuPage Technology for automatic page

optimisation for OCR (Optical Character Recognition), document managing and PC fax applications. Basically what this technology does is automatically make contrast and brightness adjustments to suit the job at hand. The supplied software includes WordScan v3.0 which makes good use of this technology. I also checked out WordScan Plus v3.0, an enhanced version — see sidebar.

Hewlett Packard says that it has shipped the ScanJet 3p as a complete image and text scanning solution and that does seem to be true. Complete installation is reasonably fast. The software is installed under Windows and it sets up its own program group with icons on completion. The program group includes utilities called PicturePlace, PictureScan and Copier Utility. The latter could well make a photocopier redundant if a good laser printer were at hand.

The ScanJet 3p comes with excellent documentation that is both clear and com-

prehensive. This includes an Installation Guide, a User's Guide and 2 reference cards: one entitled Quick Setup and the other Quick Steps for Scanning. The WordScan software has its own manual. All the books were easily understood.

Hardware installation requires inserting the SCSI card into an available slot (8-bit) and connecting the cables as shown in the clear diagrams on the Quick Setup card. The computer should be turned on after all external devices are switched on including the scanner. Then it is time to test the installation. There is a Scanner Test in the Scanning Software program group. A double-click on the Scanner Test icon will soon show if all has been connected correctly.

The WordScan software will also need installation if you wish to use OCR. This three-disk set installs without



The ScanJet 3p scanned by itself (from a brochure). The unit measures 405- by 286- by 79mm — and it's priced under \$1000

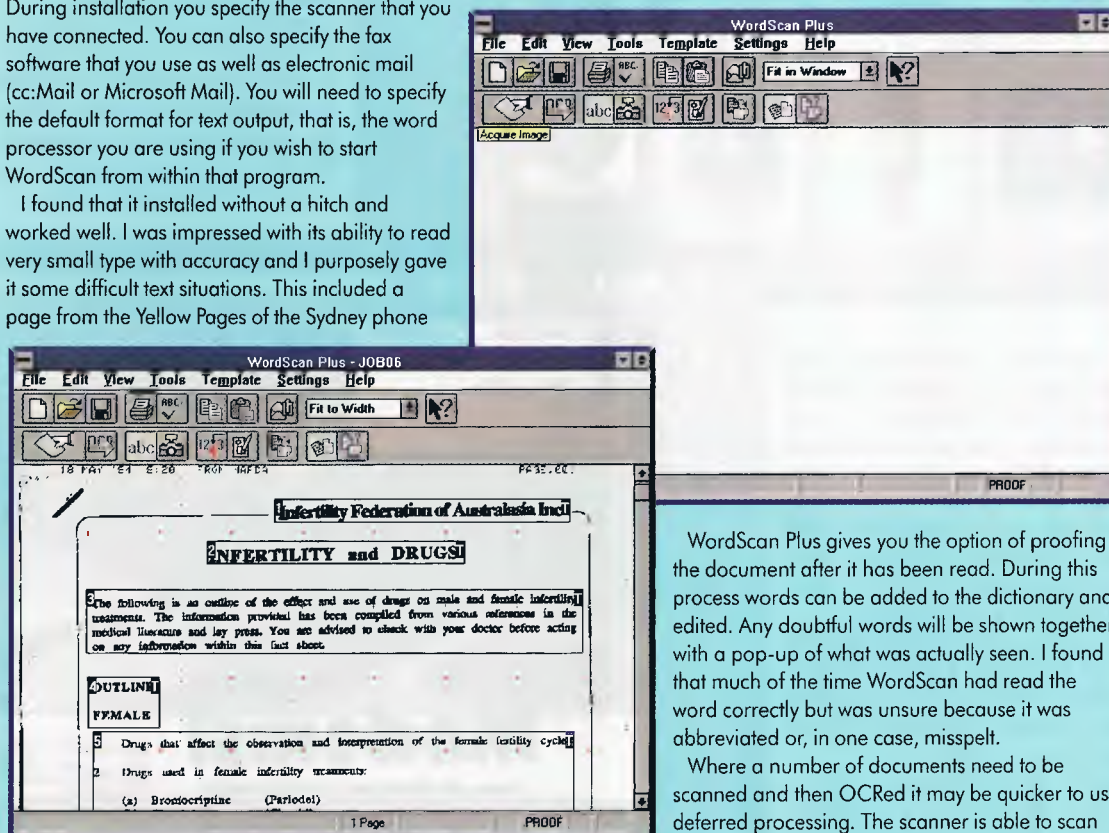
WORDSCAN PLUS

WordScan Plus version 3.0 by Calera is an extremely powerful tool. WordScan is an optical character recognition (OCR) system that will convert scanned images into text. These images may have come from a scanner or fax modem but in either case, reasonable clarity is required.

WordScan Plus is a 4-disk set that requires installation under Windows and produces its own program group. During installation you specify the scanner that you have connected. You can also specify the fax software that you use as well as electronic mail (cc:Mail or Microsoft Mail). You will need to specify the default format for text output, that is, the word processor you are using if you wish to start WordScan from within that program.

I found that it installed without a hitch and worked well. I was impressed with its ability to read very small type with accuracy and I purposely gave it some difficult text situations. This included a page from the Yellow Pages of the Sydney phone

'acquired' image appears in the preview area. This can be scaled to various sizes through the Scale menu. After the image is acquired and de-skewed, the text zones are marked out automatically. Graphic zones will be marked too, if this option is selected. The zones are numbered in the order that they will be read. This can be changed if you have a difficult job and you require the order to be different.



book. WordScan Plus did not have any trouble reading the text, although during proofing it wanted confirmation of all the abbreviations.

A dictionary of 75,000 words is incorporated into WordScan. It is this dictionary which allows the program to make sense of letters which run together and distorted letters. A user dictionary of up to 8000 words can be created and used together with the main dictionary. You are able to have as many of these dictionaries as you like but only one may be in use at a time.

WordScan is able to 'de-skew' an image up to 10 degrees. WordScan Plus also has an auto-orientation feature. The

WordScan Plus gives you the option of proofing the document after it has been read. During this process words can be added to the dictionary and edited. Any doubtful words will be shown together with a pop-up of what was actually seen. I found that much of the time WordScan had read the word correctly but was unsure because it was abbreviated or, in one case, misspelt.

Where a number of documents need to be scanned and then OCR'd it may be quicker to use deferred processing. The scanner is able to scan documents much faster than WordScan can read and process them. In many cases it could be best to scan all the documents and then process them. WordScan has provision for this.

There are many options within WordScan. One option allows you to retain columns as they are on the original. In fact, the default is to retain fonts, point size and other text attributes so that the output to your word processor is like the original.

WordScan Plus, \$1099, by Calera is a very capable OCR package with excellent documentation and extensive online help. It's distributed in Australia by Indigo Pacific, (02) 954 9000, fax (02) 954 9402.

problems and also makes its own program group complete with icons. There is no need to go into the Scanning Software program group if all you wish to do is use the optical character recognition. WordScan will do it all for you even to the point of prompting to turn a page.

It is possible, with the document feeder

in place on the scanner, to scan and read into text 20 pages without user interference. WordScan is HP AccuPage aware and will make use of that enhancement provided sufficient memory is available. This means that you do not have to be concerned about brightness or contrast.

Although it will operate with 4MB of RAM, the 8MB suggested is almost essential and more would not go astray. Disk space for a large swap file for Windows is also essential in order to avoid 'out of memory' errors.

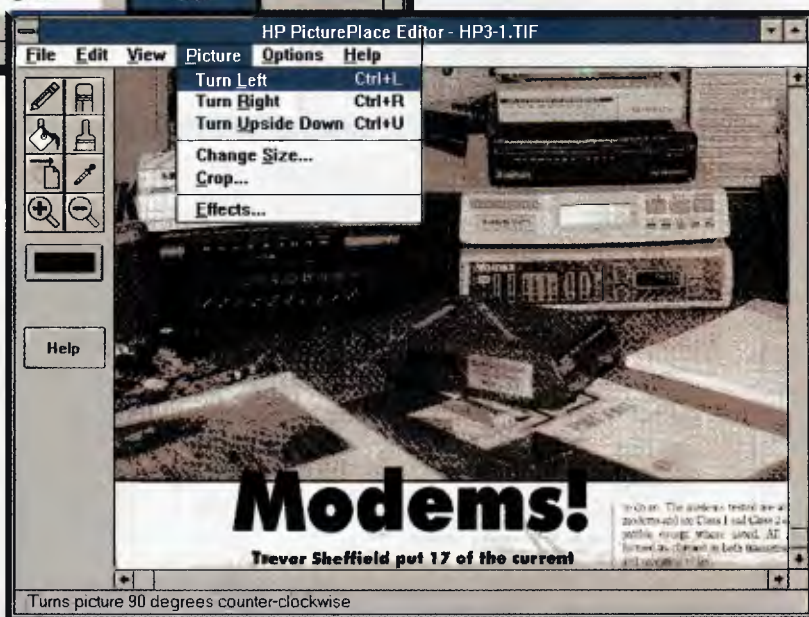
As far as disk space is concerned it is a case of 'the more, the merrier'. The basic



installation will require 4MB for the HP ScanJet 3p software and another 6MB for WordScan. Images scanned as *.tif or other graphics files can consume large amounts of disk space. A typical A4 letter scanned in *.tif format is very close to 500KB. One image I scanned used 4MB of disk space, however the letter mentioned above used only 3KB of space when converted to text via OCR.

One option that is available is deferred processing. Provided you have sufficient disk space to store the images, WordScan allows the images to be scanned now and OCR'd later.

Many Windows applications, such as Word for Windows, will automatically recognise the presence of the ScanJet and allow the Acquiring of an image or text directly from the scanner. Most software programs that support TWAIN allow the acquisition of images via the File menu. (TWAIN is an industry-standard interface



for scanners — the actual meaning of the term seems to have been lost in time.)

Some software programs, such as word processors, allow the Insertion of an image or Object Linking and Embedding — OLE — at the program's Edit menu. The image needs to have been previously scanned for it to be imported in this manner. The ScanJet 3p supports both TWAIN and OLE. One method is not superior to the other — they are different, each having its advantages. If an image requires editing then it will need to be scanned via HP PicturePlace then edited. OLE may then be used to drag it into an application.

If you already have a good quality laser printer, the ScanJet's Copier utility could easily replace a photocopier

Scanning from PictureScan allows image optimisation for a specific printer, screen, or fax. You select where the image is destined, via a menu item, and the scanner will produce the best image for that device. Image size may be adjusted to a custom proportional size and the border may be rectangular or irregular. An

Word for Windows, as well as numerous other Windows applications, automatically recognises the presence of the ScanJet. Images can be scanned directly into these applications. Any application that recognises TWAIN devices can acquire images using the File menu

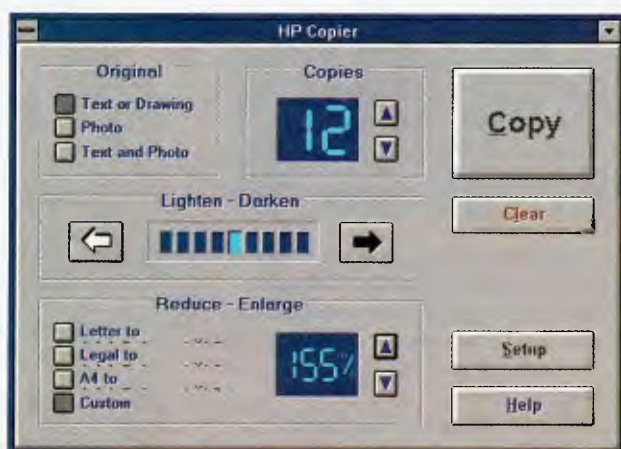


image can also be converted from continuous tone to a line drawing. HP PictureScan can automatically locate pictures on your document and determine the best exposure of light and dark areas.

The Hewlett Packard ScanJet 3p is quiet, small and neat. Whether it be document storage, desktop publishing or simply faxing images, the HP ScanJet 3p is able to do the job quickly and easily. It is easy to use and low on power consumption at a rated 30 watts. I used a 386DX40 with 8MB of RAM and IDE drives and found that the speed of the scanner far exceeded the capability of the computer. Most of the time was spent writing to disk.

Sold and supported in Australia by Hewlett Packard, the HP ScanJet 3p comes with a 12-month warranty and sells for \$995. ■

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Flowcharting

Richard Main checks out three flowcharters that can make sense of your business.

The clearest and easiest way to convey information about a business, such as its structure or work flow, is with a flowchart or an information flow diagram. For example, flowcharts are used to diagram quality control methods, how a computer program works, or how an organisation is structured. Because they use simple graphics, flowcharts are more easily remembered than words trying to describe the same process.

Many organisations, particularly those *not* in high technology industries where change is an almost daily occurrence, are

turning to management processes that allows them to streamline their operations and plan for the changes that will occur. The earlier in a business' life — the smaller the business is — these processes are implemented, the easier the business will be to control as it grows.

Total Process Management

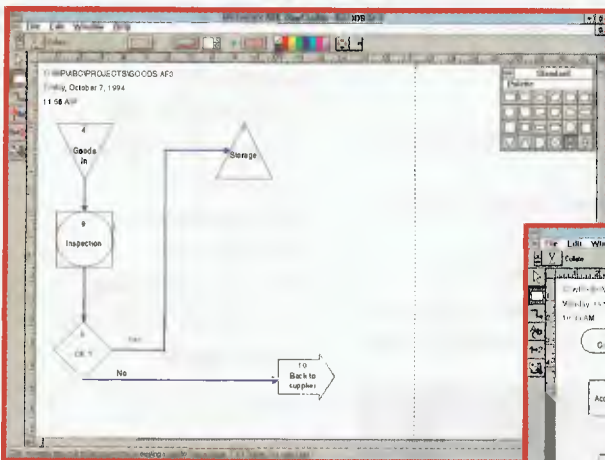
Managing change — especially rapid growth — within an organisation is never an easy task, and no management system will work unless all of the variables that affect the performance of the organisation are identified and monitored. Unfortunately, the biggest hurdle to change in any business, is its employees (and that often includes the owners, themselves). Changes can be difficult to implement, but for a business to remain prosperous and grow efficiently, it must change.

Total Process Management (TPM) is a method of planning for change, altering

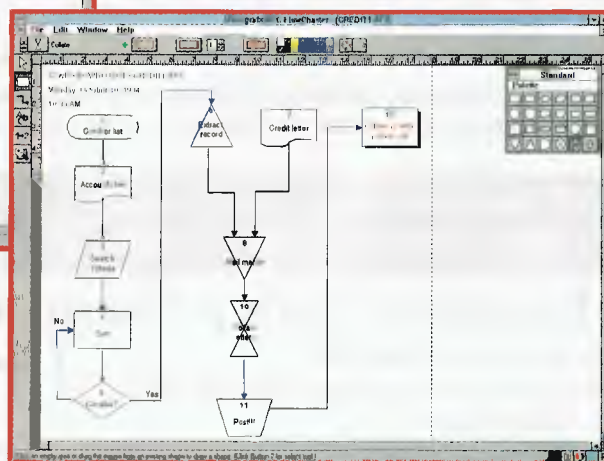
the focus of the organisation, and providing better goods and services to the customer. TPM uses a seven part process for managing change. The first is to establish a commitment to performance improvement. Obviously, if an organisation changes its structure too often and is not committed to performance, then the organisation will be worse off than before.

The second step is to create performance improvement capability. Skills need to be developed within the company that allow performance to be improved. As part of that, the business needs to be organised around 'processes', whether these are manufacturing or paper flow. Part three requires that the current work environment is evaluated by those involved in each particular area. Checking how the competitors and 'world-class' work — 'benchmarking' — is part four of the TPM process. The most important benchmarks are the most basic: how long does it take to get a product out the door once an order has been received; or how long does it take to respond to a service call and fix the problem? Part five deals with the establishment of customer-driven goals. Whether these customers

are internal or external to the company, their requirements for the speed, cost, and quality of the process need to be determined. Part six is about brainstorming innovations: a series of creative brainstorming sessions is followed by the testing of each idea on its merits. The last part, part seven, is all about implementing the changes that are needed for results to be realised. It discusses the methods for implementing change, and reviewing the results.



The market-leading ABC FlowCharter is a good all-rounder — basic flowcharts and complex linked ones are easy to create. Note the Master Items in the top left corner



The diagramming and documenting software that can increase productivity by 50%-80% is in your right hand.

For more information on Total Process Management, you might like to read Mark Youngblood's *Eating The Chocolate Elephant* (ISBN 1-57187-002-4), \$24.95 plus \$10 post and packing from Micrografx — (02) 415 2642, fax (02) 415 2641, for more details. If the title sounds rather obscure: it alludes to the fact that any apparently *huge* problem can be solved by breaking it up into smaller ones and tackling those one at a time.

And that is how flowcharting packages fit into Total Process Management. Using a flowchart the entire system can be viewed and easily understood, making it easy to identify problem areas and the solution to those problems. This even applies to such things as networks.

The three packages below were easy to work with, and I got up to speed quickly without too much reading of the manual.

ABC FlowCharter

Micrografx ABC FlowCharter is designed for those who need simple but powerful tools to design flowcharts. FlowCharter comes with three manuals — one on the theory of flowcharts, a printed copy of the symbols provided, and the User Manual. FlowCharter provides 25 different palettes of shapes for different charts. Business, auditing, schematic, computer network, and ISO shapes are just some of those available. Palettes and shapes can easily be customised and added to the palette list for individual needs.

To create a chart, simply select the palette which matches your needs. Choose the most appropriate shape, and click on the editing window. Wherever you click, the selected shape will be displayed. To link shapes together, choose the link tool from the Toolbox, select the first shape, click and drag the mouse over to the second shape. When moving shapes around the edit window, all links to that shape

will move with it — a feature that makes using the package quite easy.

FlowCharter can use Master Items to be included on each drawing. These can be a combination of the day, date and time of when the chart was first created, use of a corporate logo, chart name, and page number. This is very useful when creating charts that need to go through multiple revisions.

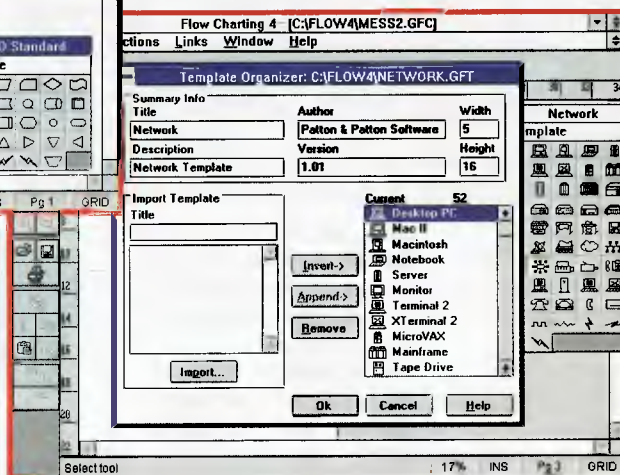
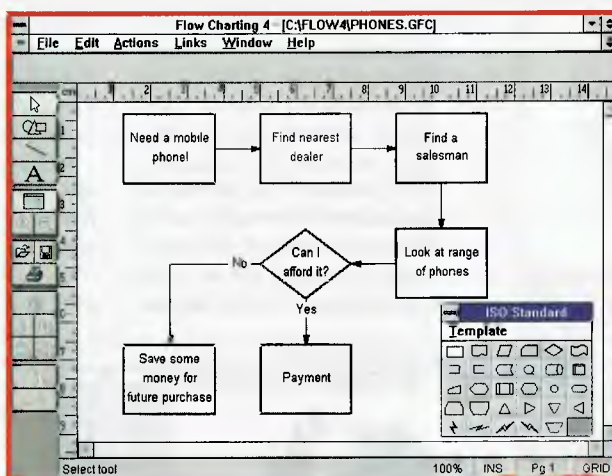
A shape in FlowCharter can be linked to other charts, so while one chart will give an overview of the whole process, each underlying chart goes into greater detail for that particular process. By simply double-clicking on an object, it is possible to link that object to another chart. There is no limit on the number of charts that can be linked, and each sub-chart can be linked to another sub-chart. My only complaint with the package was that errant mouse clicks can result in unwanted shapes or lines appearing over the chart.

ABC FlowCharter, \$495, is distributed by Micrografx, (02) 415 2642; fax (02) 415 2641.

Flow Charting 4

Flow Charting 4, from Patton & Patton Software, is a simple flowcharting package that comes on a single 1.44MB floppy, and takes up less than 2.3MB disk space. On the main screen, the user is presented with a Toolbar on the left, and a floating palette box on the right. The

With Flow Charting 4, flowcharts can be quickly drawn. Note the ISO palette — charts with these symbols are becoming a must for many types of contract tenders and other document submissions

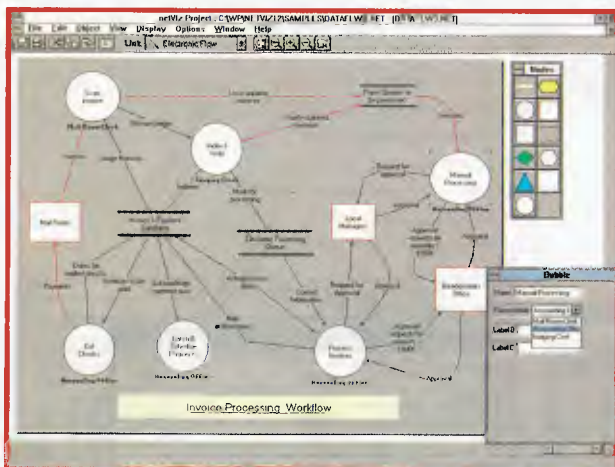


Toolbar has a pointer, line, drawing, text, and palette commands. Creating a chart with Flow Charting 4 is simplicity itself. Select the palette which suits your needs, choose a shape, and simply drag and drop. Charts can use shapes from more than one palette, and a custom palette can be created from the variety of shapes available from the other palettes.

Shapes, text and links can use colour, with colour fills of shapes and text areas to highlight a particular process. Shapes and lines can use different outline thicknesses. Shapes can be resized anywhere on the page, and connecting lines can be drawn with different styles for the start and end of each connection. Links between shapes automatically bend when the shapes cannot be connected with a right-angle link.

Like ABC FlowCharter, links to other charts with more detail for a particular process are very easy to create, and any process can be used for a link. To create a chart link, select the process that will be linked, choose Create Link from the Links

Replacing up to 5 software drawing packages with 1 is as quick and easy as turning the page.



Complex document flows or satellite links — the power of netViz lends itself to those and anything in between, including comprehensive networking diagrams

menu, and then the sub-chart that will be linked. By double-clicking on the linked shape, the sub-chart will automatically be displayed.

Flow Charting 4, \$280, is distributed by Software Express, (02) 233 8444; fax (02) 233 8233.

netViz

NetViz is a powerful flowcharting and information package that allows users to produce quite complex diagrams in a short time. Drawing a chart with netViz is easy and intuitive. Simply drag an item off the Nodes list (palette), and place it in the desired area. To link objects, choose one of the different Link types from the main menu, select the first object, and Ctrl-drag until the second object is highlighted. Although links are created in straight lines, bend points are created by Alt-clicking anywhere along the link.

As an object-orientated program, netViz has many advantages, such as when moving objects around a page, all links to that object are automatically redrawn. Users do not directly enter text onto the chart. Each object and connecting link has a user defined database of the information that can be displayed. Information such as how much a process will cost, how long it will take, who is in charge, and so on, can be entered individually. If other informa-

instance of that particular computer. By replacing the RAM field with the hard disk field in the object window, every instance of that particular machine will automatically update to the new field data.

NetViz is an incredibly powerful package, and a bargain for what it does. NetViz's ability to change the data displayed for each object, without having to change all the objects individually, is a great productivity boost. During this review, I found that drawing diagrams with netViz took less than half the time than with the other flowcharting packages.

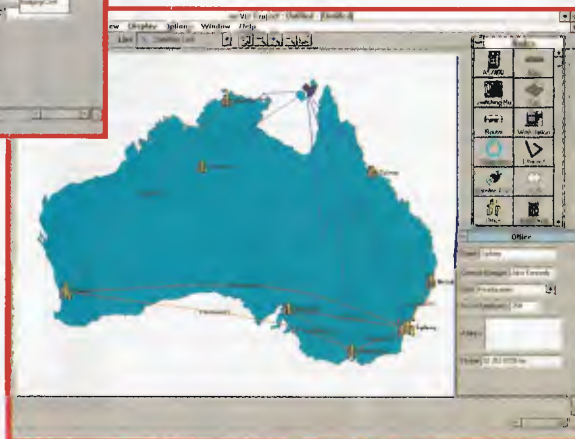
NetViz, \$895, is distributed by AustAsia, (03) 331 0854; fax (03) 866 3253. A special demonstration package, \$10, is available upon request. Contact AustAsia for more information.

Summing up

As you can see, flowcharts can be used to develop an overview of everything from biscuit making (whether in the kitchen or an Arnott's factory) to paper flow in

a small office and a multi-national corporation. Both government and international standards organisations (particularly the ISO) are requiring such diagrams in contracts, quality control, and business reporting.

Here, netViz wins hands down on ease of use and sheer power, compared to the others — but at a price. For quick and simple flowcharts, Flow Charting 4 would be my choice, while ABC FlowCharter is a good all-rounder, with value added to the package by its documentation. ■



tion needs to be displayed, changing the displayed data is a simple menu command which lists all available data fields for that object. Select the object, access Attributes Display from the Objects menu, and replace the old field(s) with the new ones. Every instance of that object will automatically change its attributes to the new field(s). For example, a computer network diagram could show how much RAM is in a particular style of computer (such as a server), but the user needs to see how large the hard drive is for each

netViz.

Simply the best diagramming and documenting tool in the business.

Designed specifically for both computer communications and flow charting.

What makes netViz so superior is that every graphical object, as well as the links between objects, have their own customisable database (even the LINE) in which user-specified information can be recorded.

netViz also enables the user or Manager to drill down and view other diagrams behind any

object or component at any level of detail. Any networked user can simply create composite graphical databases of departments and whole organisations.

Many of Australia's leading companies and government departments are already using netViz.

If you'd like the efficiency of 5 drawing packages in 1, and an increase in productivity of up to 80%, call the exclusive agents of netViz. Telephone AustAsia CE now on (03) 331 0854.

netViz

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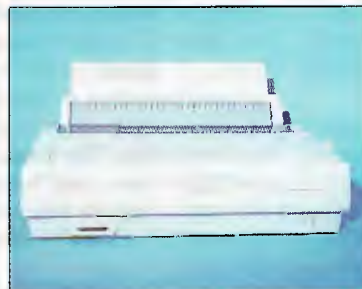
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Arm yourself!

**Before you hit the information
superhighway you have to arm yourself
with the right tools or you could end up like
any other roadkill**

With
Martin Southgate

Watch a movie about some tough guy about to head off for the final showdown with the bad dudes and invariably there will be a scene where he arms himself for the coming battle. The hero clips, buckles, straps on and sheaths an awesome array of personal artillery and ends up appraising his new dog-of-war image in a convenient full-length mirror.

Believe it or not, PC users working from home can learn a lesson from a meathead like that. Before you hit the information superhighway you have to arm yourself with the right tools or you could end up like any other roadkill.

Arnie and Sly adopt the attitude that you can never have too many guns, knives and exploding things: you never know what you might meet. The same goes for us alone-at-homers. We need more than a word processor and a comms package to deal with every eventuality.

I admit, some of us might be able to manage a MacGyver and fix any problems that arise with a little know-how, but have

you ever tried manually editing a File Allocation Table?

Beyond the primary applications that are our stock-in-trade, our best weapons are software utilities, the peripheral programs that hold a good computer system together and protect it from collateral damage — real heroes never actually get shot, do they?

My arsenal includes a specialist file manager, a set of disk utilities, an anti-virus program, an archiver, a graphics file utility, a back-up manager and a few other programs for more specific needs.

But before I explain some of my choices, I should point out that developers these days are trying to be all things to all people rather than stick to what they do best. This means that the major utilities have a large range of capabilities and a single package may appear to have all the utilities you need rolled into one.

You will also find that you get a lot of utilities in the most recent versions of DOS, including file management, undeleting files, compressing disk space,

and anti-virus capabilities. These utilities are generally okay but I still go for the experts: the packages that have a history of doing just a few things really well and have maintained their standards.

For example, XTree Gold is my file manager of choice. You can use XTree as a full DOS shell for launching programs, but I love it just for the way it works with files and directories. Using XTree, I can move, copy and delete files singly or in groups faster than dragging-and-dropping under Windows. I can prune entire directories or graft them on to new parent directories.

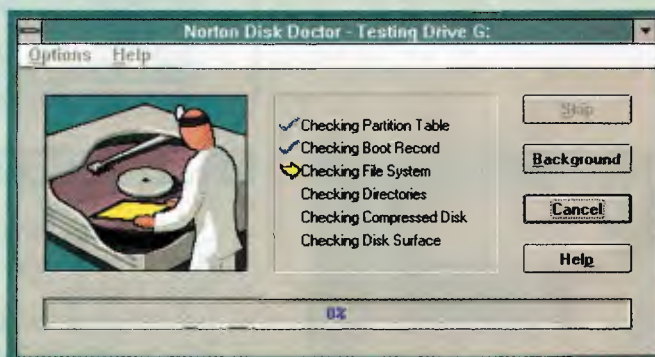
I also love the fact that I can open *.zip archive files and extract from them without playing around with PKUnzip at the command line.

What's more, I can jump in and edit my autoexec.bat and config.sys files quickly and easily.

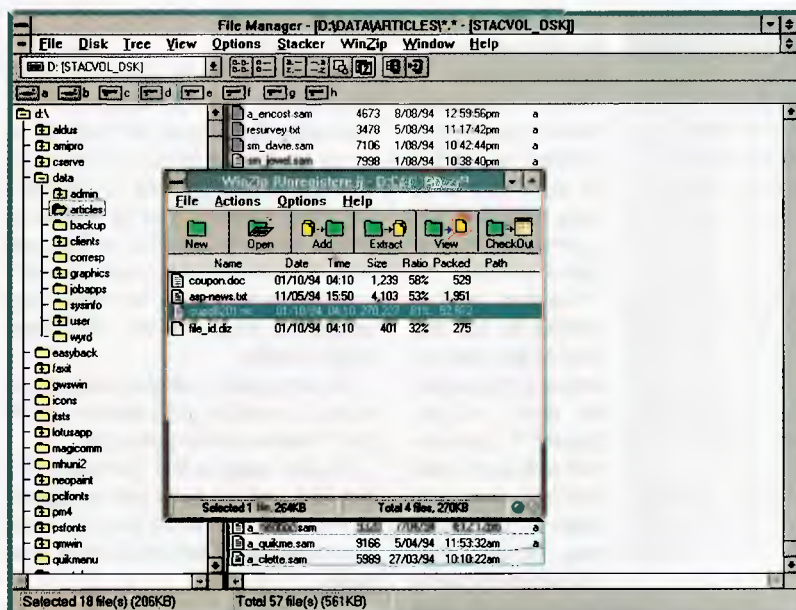
PC Tools and the Norton Utilities are the premier utility collections for disk management. There's nothing wrong with PC Tools but Norton's is my emotional choice, mostly because there have been times when I have got down on my knees and thanked God for Peter Norton.

Norton's speciality is fixing physical disk errors, undeleting files and defragmenting disk space. It does much, much more but the fact that it simply does a great job of recovering lost data is what makes it essential in my books. The good ol' *chkdsk* command isn't a patch on what the Norton Disk Doctor can do.

THE NORTON DISK DOCTOR



No program is complete without a utility like Norton's Disk Doctor — it's invaluable in recovering files from a damaged disk



WinZip will allow you to select a number of files and then simply compress them into a single archive file. It will also open *.zip archives so that you can check their contents and extract all the files or just a few

I use Nortons to maintain the integrity of my hard disks. The Norton Disk Doctor is run once a week to check for physical errors and Speed Disk every fortnight to defragment the files on the drives. I also like to have Nortons around just in case I need to fix a defective diskette or recover a lost file. Such things don't happen often but they do happen — and when they do, there's always a *very* important file on the disk.

For protection against viruses I rely mostly on good habits like keeping regular backups and not running suspect software. However, since I'm online and download programs from bulletin boards and such like, I still think it's a good idea to have a good anti-virus program lying around. The anti-virus utilities that come with IBM's PC DOS and MS-DOS are okay as long as they are kept up-to-date like any other anti-virus package.

I'm keen on FProt — available on most BBSes — and the Thunderbyte Anti-virus utilities — from Thunderbyte Australia, (07) 204 5000 — both of which have rated well in trials. Also, both Central Point and Nortons have decent anti-virus products.

The important thing to stress is that, while anti-virus software may be out of fashion, it remains an important consideration for people who work from home. The message is, don't forget it when trying to make your system the best it can be.

Archivers don't seem to have a lot to offer people who have compressed their hard drives and don't generally store much old work. However, they are important to have for other reasons as well. Archivers are essential for uploading and downloading files from on-line services such as CompuServe, Internet and local bulletin boards.

They take a bunch of files, or one very large file, and shrink it. The smaller a file, the quicker it is to transfer via modem.

As I've already mentioned, XTree can handle *.zip files, allowing you to reconstitute their contents or just take a look.

However, I am also partial to a pair of Windows archive managers — available as shareware — called WinZip and Drag 'n' Zip.

Both work in with the Windows file manager and allow you to select a number of files and then simply compress them into a single archive file. They can also open *.zip archives so that you can check their contents and extract either all the files or just a select few.

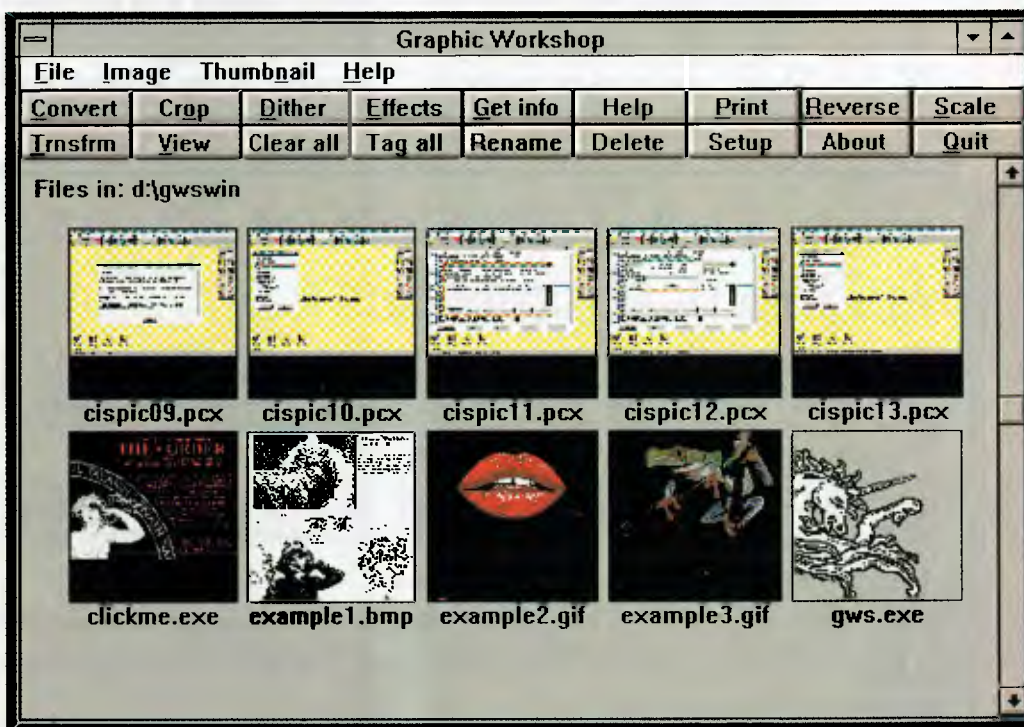
Another utility that really helps is Graphics Workshop for Windows. This is one for people who have a mess of *.pcx, *.gif, *.tif and other types of bitmap graphics files on their system.

Firstly, Graphics Workshop creates a 'gallery' of your graphics, displaying them together as miniature 'thumbnails'. This means you get some idea of what a graphics file contains without having to go through the often time consuming process of opening each file in a graphics package.

The other area in which Graphics Workshop makes life easier is in converting graphics files from one format to another and modifying them in terms of size, colour and so on.

These features come into play in desk-

Graphics Workshop creates a 'gallery' of your graphics, displaying them together as miniature 'thumbnails'



TELEWORKERS UNITE!

People who work from home or are trying to get into such a situation should consider joining the Asia Pacific Teleworkers Association (APTA). The association grew out of the Telecottage '93 and Teleconferencing '93 conferences and recently held its first annual general meeting in Sydney. The idea was to give teleworkers a concerted voice on issues that affected them as well as providing a range of services to members.

APTA aims to be an independent body for all who have an interest in, or who can benefit from, teleworking. It promotes the benefits of all forms of teleworking to government, the private sector and the general public as well as providing a focus for and co-ordination of special interest groups on particular issues.

For \$100 a year, APTA will keep individual teleworkers abreast of issues and developments that affect them as well as giving them an electronic mail service. The e-mail service is provided via the Internet and includes general access to Internet services.

Further information about APTA is available from Nick Hough on (02) 241 2933; fax (02) 241 5354.

top publishing, in situations where you transfer graphics from one application to another, or again, when uploading graphics to online services.

When it comes to backing up data, there's not that much to be said except for 'do it'. Gone are the days when the backup command in DOS was unwieldy and about as friendly as Rambo at a flag-burning rally.

Back in those days I used to use a shareware program called Point and Shoot Backup and Restore which was really neat. Now I can safely use the in-built DOS backup manager with ease and confidence, although I must say it took a bit of getting used to.

The thing about utilities in general is that you come to use the ones that fit

up disk space when you only really need half a dozen, even if it means sacrificing the machismo associated with having every computer capability ever conceived.

Shareware makes this process easier because of its try-before-you-buy method of marketing. For this reason, shareware has long been a popular source for utilities. Some say that shareware is on the decline because of the drop in software prices, retail distribution, and CD-ROMs — phooey.

To belabour the point, the major applications serve a general audience while programs, such as those in the utility category, allow a user to customise their system and 'fill in the gaps'.

Shareware is the only place where you

your computing habits and the nature of the work you do.

Not everyone mucks about with graphics or handles so much data in so many directories that a powerful file manager is essential.

However, to find utilities to suit you have to pay close attention to the computer press and ask yourself if a prospective addition to your collection is going to make a real difference. You don't want 101 programs taking

can get hundreds, nay thousands, of specialist programs.

What's changed with lower prices, retail distribution and CD-ROMs is that shareware distributors can't survive by trying to compete in the mainstream. A software author planning to develop a shareware word processor for general use should probably have his or her head read. A developer who comes up with a postcode generator for the major word processors would, on the other hand, stand a chance.

The net result is that shareware can remain in a specialist niche ideally suited to the try-before-you-buy principle.

The best place to find shareware utilities and applications is online; alternatively, request a catalog from the many shareware distributors you'll find in these pages.

On CompuServe for example, a user can find and download from the thousands of titles available, try them out, and then jump back online to register the ones they want.

Software utilities are to the home worker what a good set of tools is to the handyman. The handyman doesn't try to build an entire house, but he or she can keep it in good shape, make additions and change things to make the home suited to their lifestyle.

Not everyone has to be a handyman and you can get by with a pre-loaded operating system 'plus bonus office pack', but everyone can do much better if they add some of their own touches to customise their system to suit.

May the force be with you. ■

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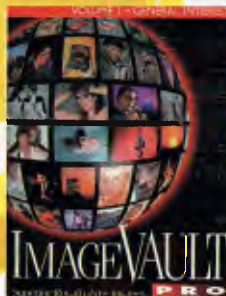


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CD Resource-ry

CDs offer an almost inexhaustible resource for almost every interest. Eric Holroyd's been indulging his passion for music ...

The CD-ROM revolution is really spinning now — there's some magic software available from the ever-growing catalogs. As my own special area of interest lies in music, I decided to sample a very small portion of what's available as a 'resource' for my home office CD library. A decade ago books and encyclopaediae from the family's bookshelves were a resource of entertainment and factual material for a multitude of purposes from school projects to business documents and self education. Looking at the CD-ROMs for this article has convinced me that this type of media does the same sort of job, only much, much better. If you've got a CD drive and are looking for 'quality' discs, ask for a catalog from the companies mentioned below — they all have extensive collections that cater to every taste.

First up was the MIDI Master Collection by Romeo Music International, a disc with lots of music in *.mid and *.wav format, a file player to play both them and audio CD tracks, plus some useful reference text files. It self installs under Windows with five icons covering Composers

Across Time (Bach, Beethoven, Mozart and so on), American Pop (blues, country, new age and others), Festival (music for weddings, New Year, Valentine's day and the like) and two groups where popular classics have been used in movies and cartoons, like Tchaikovsky's 'Sugar Plum Fairy' from Disney's 'Fantasia'. The music files played nicely through my Sound Canvas card and the MIDI Mapper — which got overwritten by the install program so watch out for this. Luckily I had a safety copy saved for just such an event so re-copied it back.

Those text files carry answers to many user questions. There's a glossary of musical terminology; a section on MIDI and computer tips; another with SCSI hints and tips; plus a musical trivia quiz and composer biographies. It's a very good value CD.

The MIDI Master Collection, \$29.95, is distributed by Communications Strategies, (07) 841 1055, fax (07) 841 1637; PO Box 119, Springwood 4127 Qld.

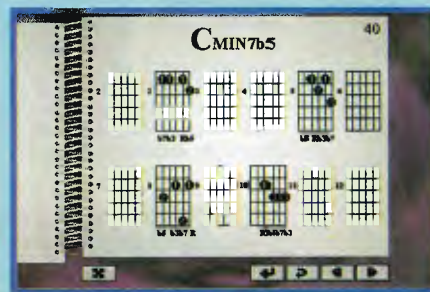
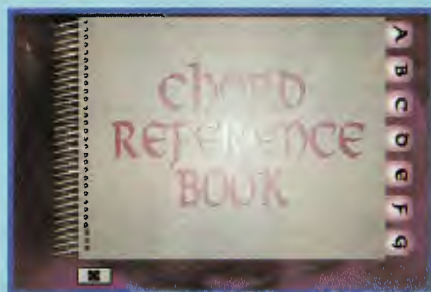
Selectware's All Music Guide is a database covering recorded music available on CD, cassettes and even those good old

vinyl LPs. It offers multiple search facilities over 200,000 albums on more than 30,000 artists and groups. There's classical music, jazz, blues, plenty of early rock and roll, plus Zydeco and Hip Hop too, so everyone's catered for. Two versions of the program — one each for DOS and Windows — are included on the disc along with much music magazine information and review material on many listed recordings. An 800 word music glossary, artist discographies and musical histories make this is another useful CD.

The All Music Guide, \$89.95, is distributed by Dataflow, (02) 310 2020, fax (02) 319 2676; 15 Merton Street, Zetland 2010 NSW.

The three classical music CD-ROMs in Microsoft's Home series are great music resources and reference works covering Stravinsky's 'The Rite of Spring', Mozart's 'Dissonant Quartet' and Beethoven's 'Ninth Symphony'. They're each introduced by Robert Winter, the American music educator and pianist who discusses each composer's work and the instruments used in great detail. The CDs are best described as 'illustrated, interactive and entertaining musical explorations' where specific sections can be individually played to gain deeper insight into the whole piece. A Close Reading feature continuously displays a text commentary whilst the music is playing, with Hypertext words for an even fuller explanation. Instruments of the Orchestra plays the sounds of each instrument, and

LEARN TO PLAY GUITAR



Learn to Play Guitar has 11 complete lessons and includes a very useful chord reference

discusses its construction. Once again there's a full glossary of musical terms plus a musical trivia quiz on each composer for up to four players. The three discs feature beautiful recordings by major orchestras and will also play as normal audio CDs.

Stravinsky's 'The Rite of Spring', Mozart's 'Dissonant Quartet' and Beethoven's 'Ninth Symphony' CDs are about \$120 each. They're published by Microsoft and are available from most good CD dealers.

Microsoft's Musical Instruments is a very entertaining reference tool and covers the various instrument families with beautifully drawn pictures of brass, strings, woodwind, keyboards and percussion instruments. Click one and explore a single instrument or all its relatives, having each one play a little tune to demonstrate its sound.

A Musical Ensembles section depicts orchestra, chamber groups, jazz bands and so on, again offering playable demo tunes in all the styles. Instruments of the World lets you click a world map display to see a list of instruments played in the selected country, whilst the A-Z of Instruments offers click selection from a scrolling picture list of everything from Accordion to Zurna or there's a very fast text search function. I deem this to be a most useful CD for both home and classroom resource work.

Microsoft's Musical Instruments, \$115, is also available through dealers.

A Compton's New Media CD-ROM entitled *Jazz: A Multimedia History* is an electronic version of the excellent Prentice Hall jazz book which covers jazz from traditional to be-bop and beyond in an easy to navigate manner.

There's a great deal of textual reference, showing extensive knowledge of the jazz world, plus around 120 musical examples, providing about an hour of music. The Beginnings of Jazz has notation of the musical examples, and there's a print-out feature if you want hard copy. A search feature quickly locates major jazz artists such as Louis, Basie, Miles, Duke and Billie, displaying a list of their famous

solos, computer renditions of which can be played with a mouse click.

Over a dozen video clips (including Charlie Parker, Dizzy Gillespie and Dick Hyman) round off this 'must have' reference for jazz aficionados and students.

Compton's New Media Jazz: A Multimedia History, \$99.95, is available in both PC and Mac formats; also distributed by Dataflow.



No real student of jazz should be without the Louis Armstrong: A Multimedia History CD either. A sensitive and authentic treatment of Louis Armstrong's life and times, it has many beautiful black and white photographs accompanying his life story right from when he played cornet in the New Orleans Colored Waif's Home. Opening with a video of jazz historian Dr Herb Wong discussing Louis' status as the 'single most important figure in the history of jazz', it also has video interviews with jazz greats like Clark Terry and Dave Brubeck telling Armstrong anecdotes. There's an actual performance video of Louis fronting his big band, plus a discography and suggested 'reading list' of Armstrong related books. Ten great audio tracks of Louis at his best will play either through the computer system or on a regular audio CD player. This is an altogether very en-

The MIDI Master Collection has a comprehensive collection of different types of music as well as a glossary, MIDI and computer tips, SCSI hints and tips plus a musical trivia quiz and biographies of selected composers

tertaining and informative CD-ROM covering the very birth of jazz with great accuracy.

Louis Armstrong: A Multimedia His-



Joy To The World

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The Karaoke CDs cater to a variety of musical tastes — from Otis Redding and Elvis to outright 'pop' and old favourites

tor, \$54.95, is from Sega OziSoft, (02) 317 0900; 200 Coward Street, Mascot 2020 NSW.

If you are interested in playing guitar, the Windows Learn to Play Guitar CD is certainly good value. The tutor is one Cristof Flandres and a video sequence of him playing a very fast piece reminiscent of Steve Vai (a bit like the guitar battle in 'Cross Roads'), complete with finger tapping, hammer offs and whammy bar work, establishes his credentials. The program uses Microsoft's MCI video driver to work through 11 complete lessons covering scale and chord work right from basics to reasonably competent. Scales are shown on screen in both notation and as finger placement on the guitar neck and Mr Flandres explains it all in a very pleasant and simple manner. In the last lesson he discusses guitars and amplifiers by Fender, explaining the different Fender models of guitar and their relative merits, rounding off a well done and useful learning tool.

Learn to Play Guitar, \$69.95, is also from Dataflow.

Communications Strategies also carries the Dr Music Lab CD with its vast content of sound files — nearly 800 *.mid files, 470 *.wav files, 730 *.rol files (plus *.mods and *.vocs, too). There's also Winjammer, a full fledged MIDI sequencer for Windows, and a Winmultm directory has lots of multimedia related

files for Windows — Trekkie fans will love the Startrek demo complete with sound. One thing that caught my eye (naturally!) was a Rude Sound player with a nice interface. It plays burps and other stuff from a menu. Funny! Lots of converters (*.rol to *.mid, *.voc to *.wav, even Mac MIDI to IBM) plus piano programs and wave editors abound. The same distributor

extensive catalog — has a lot in this category too — like PC Karaoke (several discs from Elvis the King! to Top Pops of the '80s and '90s), whilst the Karaoke 4.0 I listened to had 'You are so beautiful' and 'Sittin' on the dock of the bay' among others. I had a good time with that one. Blaster Mastery is a \$55 book and CD with sound and video clips plus utilities — it's a sound and video editing and playback reference. For those users with the

Reel Magic fitted, LaserBaud has a huge library of video movies, like Andrew Lloyd Webber: The Premier Collection (14 classics for \$46). Hot Sound and Vision, \$34, has loads of demos from BBSes and hackers, *.gif and *.jpg pics, loads of games like Wolfenstein and Major Stryker, and absolute stacks of MIDI files. A music utility directory held goodies like a drummer program, a guitar tablature transcriber, and a pop-up TSR to tell MIDI info.

LaserBaud, (03) 482 3814, fax (03) 482 3876; 49 Ramsden Street, Clifton Hill 3068 Vic.

I've long been a fan of the So Much Shareware CDs and No.4 lived up to expectations. With 3 dozen or so directories covering everything from BBSes to GFX



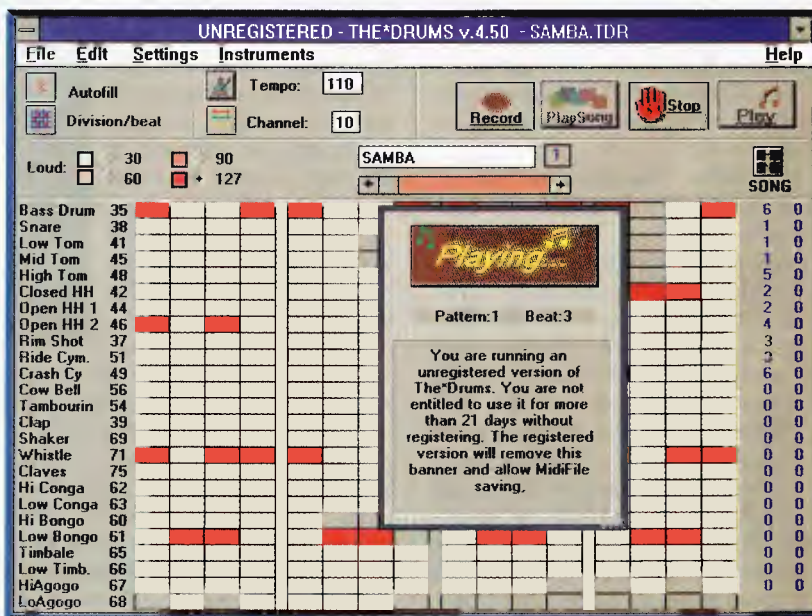
You Are So Beautiful

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has Intro to Classical Music (a Windows CD at \$99) and Resource Library Audio (\$35) among thousands of others in their ever growing catalog.

Dr Music Lab, \$29.95, is also from Communications Strategies.

LaserBaud — another company with an



Hot Sound and Vision not only contains a wealth of games and MIDI files, but goodies like this drummer program

to MIDI to Windows, it has literally thousands of files. Luckily, every directory's contents are listed separately so you can print and file them to work through. I concentrated on the Music directory for this piece and found some nice Jean Michel Jarre MIDI files, Michael Jackson's Black or White, a frets chord and key chart program for guitar players, loads of other MIDI files and several players for *.wav, *.mid and other file formats. A nice find was the GUS module player done specifically for the Advanced Gravis Ultrasound card. A separate Windows directory had more goodies, like Windows Music Sculptor and a nice MIDI editor. This CD is excellent value.

So Much Shareware No.4, \$49.95 — my copy came from Advanced Multimedia Distributors, (03) 374 1410, fax (03) 374 2249; PO Box 313, Niddrie 3042 Vic.

Most of the distributors I contacted for material for this piece were snowed under with new stock and were in the throes of putting together their latest catalogs. As most of these can be had just



The Dr Music Lab CD has some 2000 sound files, a Windows MIDI sequencer — and a 'rude sound' player

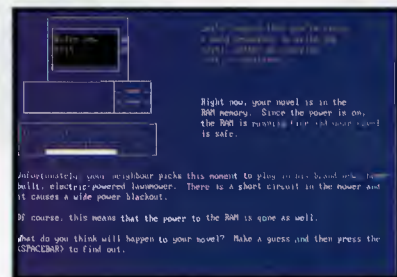
by phoning it's a good idea to do just that and hunt out some of these 'resource' CDs for your own collection.

These resources aren't limited to music, of course. Whether your interests

lie in history, literature, technology, geography, games, whatever, there are thousands of megabytes worth of files out there on CD, just waiting to be discovered.

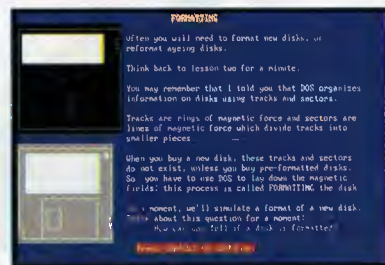
200 GUIDES TO COMPUTING TO GIVE AWAY!

The biggest hurdle to jump when learning about computers is coming to grips with the unfamiliar terms and concepts. For newcomers to computing, learning the basics can be a problem: magazines like YC can't continually cover them or there wouldn't be much room left for other info; and asking friends for help often leads more to confusion than enlightenment.



However, Brisbane-based Cottonsoft has put together a 30-page booklet — *The Guide to Computing* — that covers the essentials and comes complete with an easy to use disk-based tutorial. It's ideal for those who are still, say, trying to work out the difference between RAM and ROM. The booklet also gives good

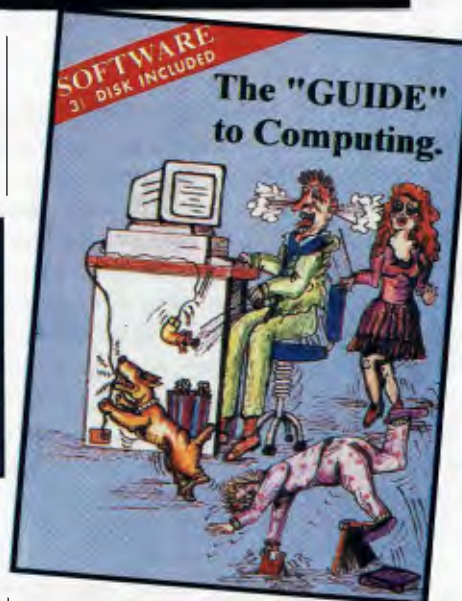
grounding in such things as file systems, setting up a printer, Windows and CMOS settings. The tutorial clearly describes such things as the operating system, booting up, working with files, formatting a disk and copying a disk and files.



This month only we are offering new and renewing subscribers the chance to get a copy of *The Guide to Computing* free — be quick though, we only have 200 copies to give away.

The booklet is also available from Cottonsoft for \$9.95 — contact them on 1800 812 908.

If you want to know even more, the same company produces the Fundamentals of Computing course which includes detailed notes, an expanded version of



the disk tutorial, toll-free phone help and a typing tutor program. The course is priced at \$195, but *The Guide* includes a coupon that gives \$20 off the price when ordering.

Interested? Then turn over the page and subscribe now — you might just win an Epson printer, too! ■



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See page 41

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OS/2 Warp

**IBM's 32-bit operating system is here —
now! John Hepworth reports on OS/2
version 3.**

With simultaneous events in London, New York and Sydney, IBM officially announced its newest version of OS/2. Widely available in Beta test as 'Warp', most people assumed that Warp was merely a code name. Not so! The name Warp gets pride of place on the pack — it's officially OS/2 Warp. The name OS/2 Warp appears in large print on the front of the packs, while the words Version 3 appear in small print on the side.

The Sydney announcement, attended by over a thousand people, started with an hour-long debate. With the title of 'Is there anything better than personal computing?', the debate starred teams of well-known comedians. It also had Peter Coughman of ABC fame as the host, and Rolf Harris as the judge — complete with

wobble board! The announcement moved on with music, multimedia and demonstrations to cover the features and capabilities of this newest version of IBM's 32-bit operating system.

What's in Warp? IBM claims that Warp has impressive new usability features, slimmed down system requirements, and comes with a BonusPak of more than a dozen popular applications. Warp has all the multitasking power of earlier versions of OS/2, and runs a great variety of programs — native OS/2 applications, 16-bit and 32-bit Windows programs, and DOS programs.

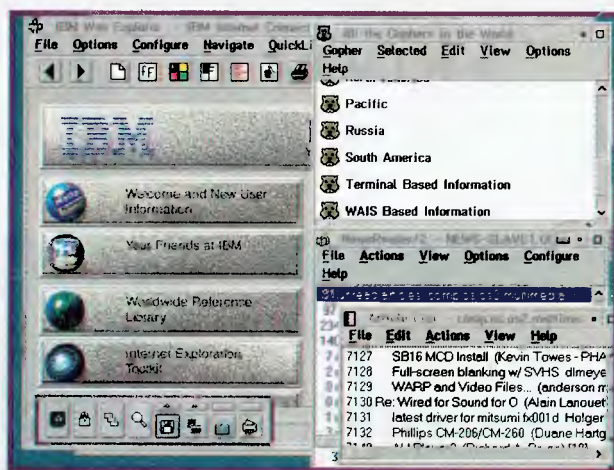
The Workplace Shell is IBM's name for its object-oriented graphical user interface. Icons and group windows float on the screen, and can be moved to suit the user. In addition there is the LaunchPad, a floating toolbar on the desktop which gives users access to frequently-used applications and tools. To customise the LaunchPad, just drag-and-drop application icons onto it. The Workplace Shell allows nested groups, and to reduce clutter a parent group can be closed while a child group remains open. There's also a new tutorial that uses both text and graphics

to help left and right brain thinkers learn. Warp is easy to learn and use, especially for those who have used Windows or a Mac before.

Attractive to a vast range of potential users is Warp's emphasis on communications. There's CompuServe Information Manager for OS/2 to access the features of this popular online service. HyperAccess Lite for OS/2 to give access to a great range of other online services, including bulletin boards. FaxWorks sends and receives faxes simply and easily.

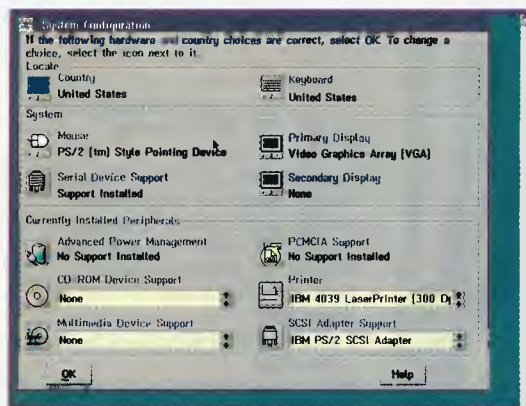
Finally, there's access to the Internet! Warp's comprehensive Internet tools are under the heading of the Internet Connection for OS/2. This has TCP/IP communications software, Internet access utilities like Gopher, File Transfer Protocol (FTP), Telnet, NewsReader and a graphics web browser called WebExplorer. One button registration and access to the IBM Global Network is included, with three hours of free connect time. As IBM's John Soyring said at the announcement, 'It's an easy on-ramp to the Information Superhighway'. The Internet demonstration included a live link multitasking downloading a *.gif while using Gopher and other tools to look for information.

Warp also bundles a word processor, spreadsheet, database, charting program, report writer, calendar, monthly planner, appointment book and phone book. These are under the sub-heading of IBM Works and Personal Information Manager.



Warp offers direct access to the Internet. Its Internet Connection for OS/2 includes utilities like Gopher, File Transfer Protocol (FTP), Telnet, NewsReader and a graphics web browser called WebExplorer. Also included is CompuServe Information Manager for OS/2 and FaxWorks for OS/2





Installation of the new version of OS/2 couldn't be simpler: Just boot your system from the first disk, let the installation program determine the installed hardware and then either swap floppies or put a CD into the drive according to the package you purchased

All these productivity tools, along with the communications programs mentioned earlier, are grouped under the heading of the BonusPak — which is included free of charge with every copy of Warp. It gives users the immediate opportunity to experience the advantage of native OS/2 applications.

Yet another BonusPak feature is Person to Person, a sort of electronic whiteboard that can be seen, shared and updated by up to 8 simultaneous users. By updating and revising a common document in real time, users can achieve the efficiency, productivity and interaction of a meeting without leaving their desks.

Installation of Warp is greatly improved over previous versions, with an automatic program that can recognise a great range of hardware devices from video boards, right through to SCSI adaptors and multimedia. There are also a great range of printer drivers. Just boot your system from the first disk, let the installation program determine the installed hardware. Then either swap floppies, or put a CD-ROM into the drive according to the package you purchased. Alternatively, there is an advanced installation for users and systems with special needs. This lets the user make choices as the installation proceeds to best fit Warp to the system and the individual's needs.

Warp also offers plug-and-play PCMCIA, with the ability for PCMCIA cards to be plugged in while the system is running. The PCMCIA utility then recognises the card without a reboot. Users can also designate an application to be launched when a certain type of PCMCIA card is inserted, such as launching a fax

program when a fax modem card is inserted. It's even possible to queue up faxes, print jobs, and outgoing E-mail and send them when next the computer is plugged into its connected environment.

IBM has optimised games performance by identifying a hundred of the best-selling DOS, Windows and OS/2 games and incorporating settings for them into the operating system, giving them a performance boost when they run on Warp. A game development tool will also be offered, and will be in Beta in early 1995. Multime-

dia support includes the Person to Person previously mentioned, plus Photo CD support, a multimedia viewer, and a range of audio and video support. There is also MPEG, *.flc and *.fli support.

IBM is also making a migration tool available to developers. It's a new and enhanced version of One Up Corporation's SMART (Source Migration Analysis Reporting Toolset), and will help developers migrate 16-bit and 32-bit Windows applications to IBM's OS/2 Warp as well as to other versions of OS/2. SMART will double the speed of conversion efforts. It consists of an Analysis and Reporting Tool and a Source Migration Tool. It will be distributed late this year on The Developer Connection for OS/2, a CD-ROM newsletter subscription which ships quarterly to thousands of application developers around the world. Contact IBM on 13 24 26 for more information on The Developer Connection and SMART.

In his presentation at the announcement John Soyring, Divisional Director Personal Software Products Division, said that OS/2 Warp is stable, proven, and works the way you work. He further said that Warp is the Operating System of tomorrow, and invited the audience to compare the here and now with a product of the indeterminate future. Suggesting that Warp is the product customers want when they want it, he emphasised that it has all the same power as before, but is easier to get started and use.

Soyring also said that Warp is being preloaded onto new computers by IBM, Toshiba, and Dell, with more manufacturers preloading Warp to be announced soon. The proportion to be preloaded with

Warp will be driven by the customers' wishes, but Soyring noted that, since the US judgment on Microsoft's licensing practices on July 15, it has become much easier to get manufacturers to preload OS/2.

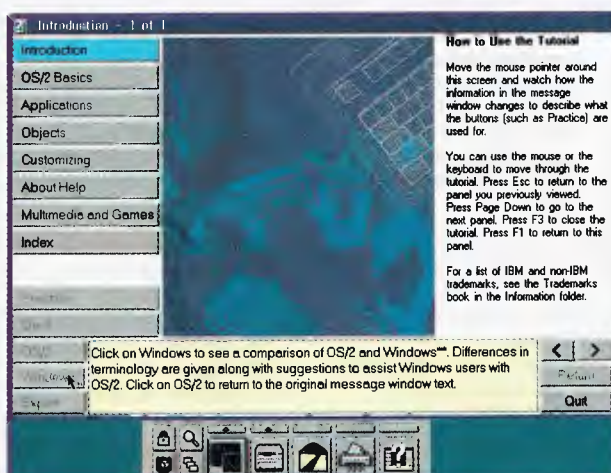
System requirements for Warp are a 386 SX or better processor with 4MB of RAM, with faster processors and more memory being an advantage.

Iggy Pintado, Australian Senior Brand Manager, IBM Personal Software Products, said, 'For PC users, Warp is the right product at the right time. We've improved a time and market-tested product, giving customers more features at a greater value without giving up any of OS/2's power. The product's ease of use and small memory requirements make it attractive to mobile users, medium and small businesses, and home users. If you're not using Warp, you're not getting the most out of your PC.'

The initial version of Warp runs OS/2 or DOS programs directly, but needs a separate copy of Windows to run Windows programs. A second version of Warp will be available about the time you read this, that incorporates Windows code into the package, eliminating the need for a copy of Windows. Other Warp versions that will be available later include one with clients for a variety of networks, one for multiprocessors, and finally a version for the PowerPC chip. Soyring stated that, when Windows 95 comes out, IBM will look at its API. If applications are released that will only run on 32-bit Windows, IBM will consider updating Warp to run the same programs.

The recommended price of the initial OS/2 Warp release is \$179, though street price is expected to be much lower, and as mentioned above, many manufacturers will be bundling it with new systems. ■

The comprehensive new tutorial can be presented in either text or graphics. Warp is easy to learn and use, especially for those who have used Windows or a Mac before



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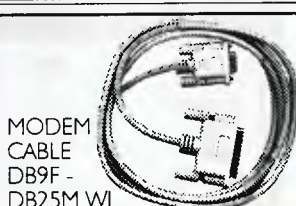


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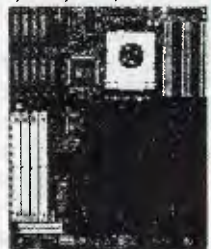
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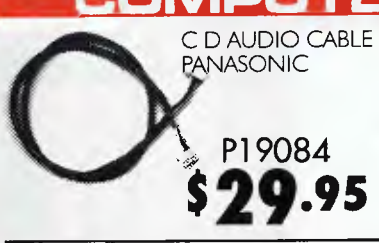
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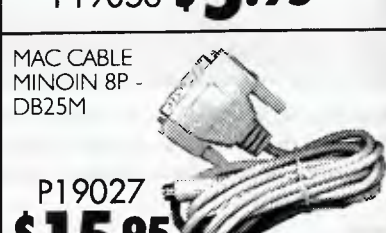
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Visual C++

Lurking behind many of the applications we use is Microsoft's Visual C++ Compiler. Stephen O'Brien explains why it's such a good 'tool' for professional developers.

Microsoft's Visual C++ Compiler (VCP) is not just another C/C++ compiler; it is the first compiler to use the Microsoft Foundation Class Library 2.0 (MFC 2.0). Now, if you've never programmed Windows before and you can't stand acronyms, then none of this will mean much. The gist of it is that just about all Windows programming in the past has used either the Windows SDK (Software Development Kit) or alternative application frameworks such as Borland's Object Windows Library (or

MFC 1.0 if you were a masochist). MFC 2.0 is to Windows programming and MFC 1.0 what C++ is to C. It builds on object-oriented assumptions to give you a programming framework that fits, dare I say it, the very paradigm of the Windows operating system like a glove.

By now you're probably asking what in Gates' name is an application framework? Programming for Windows is like building an office block: there are numerous levels to consider, and if you don't do it right, the whole lot is pretty likely to collapse. If building is the metaphor, then

application frameworks are the central supports and the scaffolding: the programmer's job is to fill in everything else. Using MFC 2.0 as a framework is like building with steel beams twice as strong as anyone else's. Sure it is based on MFC 1.0 and you can build much the same as you always have, but with MFC 2.0 you can go higher than ever before.

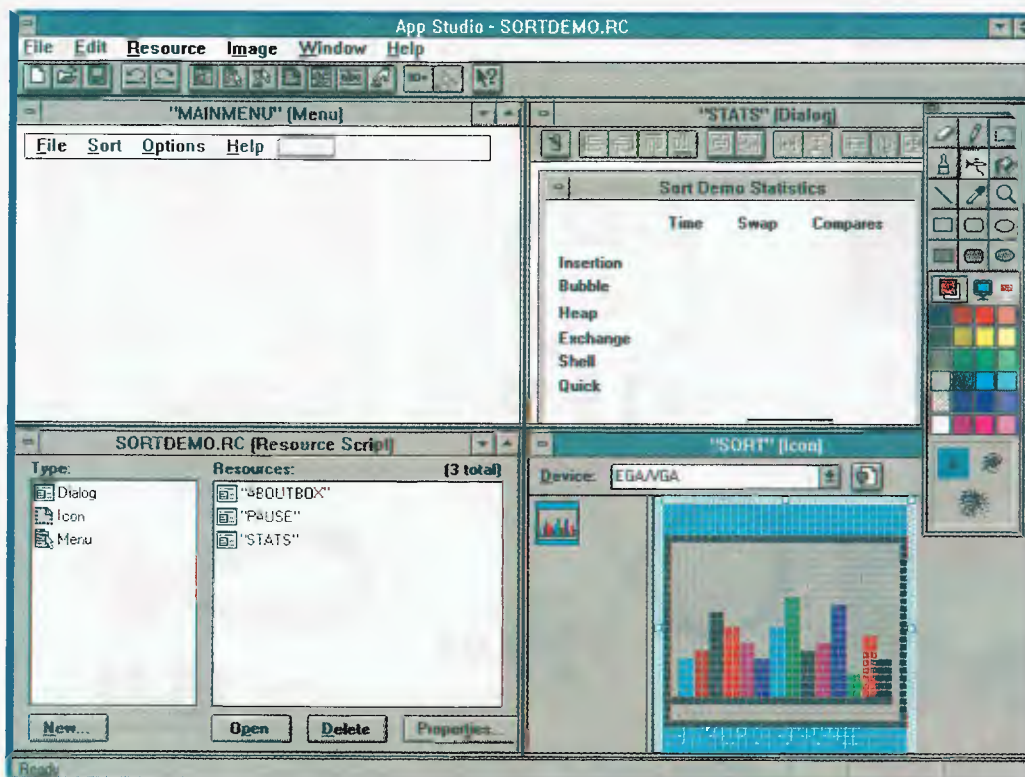
However, there is a lot more to Visual C++ than a little high-tensile steel.

Anyone who has used C/C++ 7.0 and its DOS Workbench will appreciate the highly integrated environment that VCP presents. No more shelling to a DOS window to run the editor or compiler. In the VCP IDE (Integrated Development Environment), the editor, debugger, code browser and complete C/C++ language and MFC help system are all a keystroke away. Actually, the help system is so effective, there's little need for printed documentation. It's even packed with prototypes and examples set for instant copying to the clipboard so you don't need a language reference cluttering up the desk!

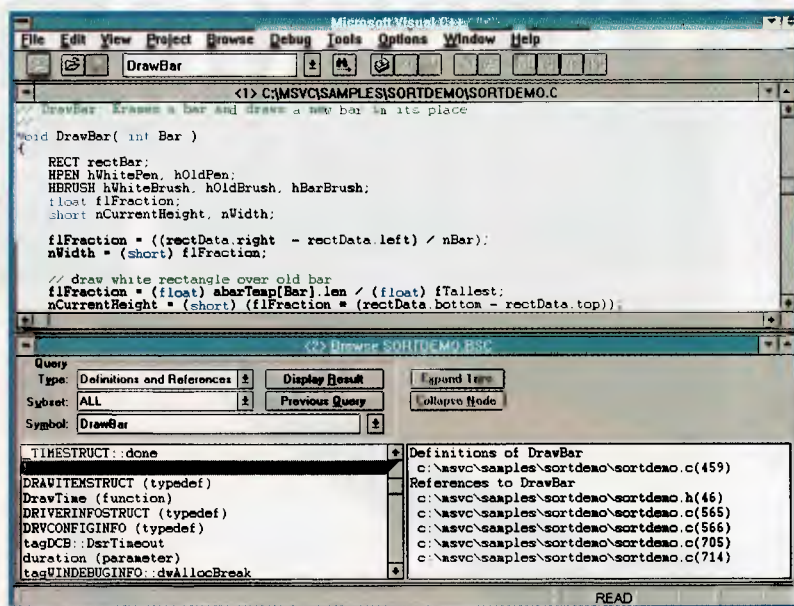
The IDE editor highlights syntax in different colours, separating commands from comments, assisting with formatting, and generally keeping programs readable and organised. This is neat, but what's even better is that all the newly integrated tools like the compiler, browser and editor, run concurrently so that you can set a project building in the background and zip across to App Studio to work on the interface. It is important for programmers to maintain their development inertia. The last thing VCP gets in the way of is a power-programmer on a multiple caffeine hit at three in the morning. (It obviously doesn't believe in unnecessarily endangering its host platform.)

VCP caters for power-programmers in a number of other ways as well.

Since the opening of Windows, C and C++ programmers have been cursed by the sheer drudgery of programming for an API (Application Programming Interface) that believes even the most basic application should require the mastery of a very black art indeed. What this means is an awful lot of typing and that sort of



App Studio, Visual C++'s resource editor, brings together an icon imager, menu maker, and dialogue definer. This section defines the entire look and feel of your application, so it is important to be able to cross-reference quickly between one interface module and the next



Sort Demo is one of the sample applications that ships with Visual C++. Colour syntax highlighting increases the readability of the code. The Browser, the lower window, quickly finds all instances of reference to a particular function. Perfect for fast and effective debugging

typing is boring because Toolbars, Status Bars, Tool Palettes, Print Previews and so on take a great deal of ground work to get, well ... off the ground.

It's Wizard!

App Wizard is a programmer's assistant. It isn't particularly clever, and it won't help you if you don't already understand Windows programming, but it can create the basis of an application from scratch, even if that application makes full use of all the bells and whistles that Windows can toss in its direction. It derives classes from MFC, adhering to what could become Windows' most important standard.

The other wizard, the Class Wizard, comes later in the piece. Any Windows program executes using three key elements: the application code, the user-interface and — the lifeblood of the system — the Windows messages. Normally a programmer has to sit down and work out the masses of interactions between these three components with a serious pile of butcher's paper. Class Wizards, bless their little bitty feet, automatically hook them all together. It becomes more a matter of point and click from the dialogue editor rather than hand-tuning source files. No more hassles with working out the parameters for particular messages, the Class Wizards at your service look them up and create member functions automatically.

Class Wizards run out of the VCPP App

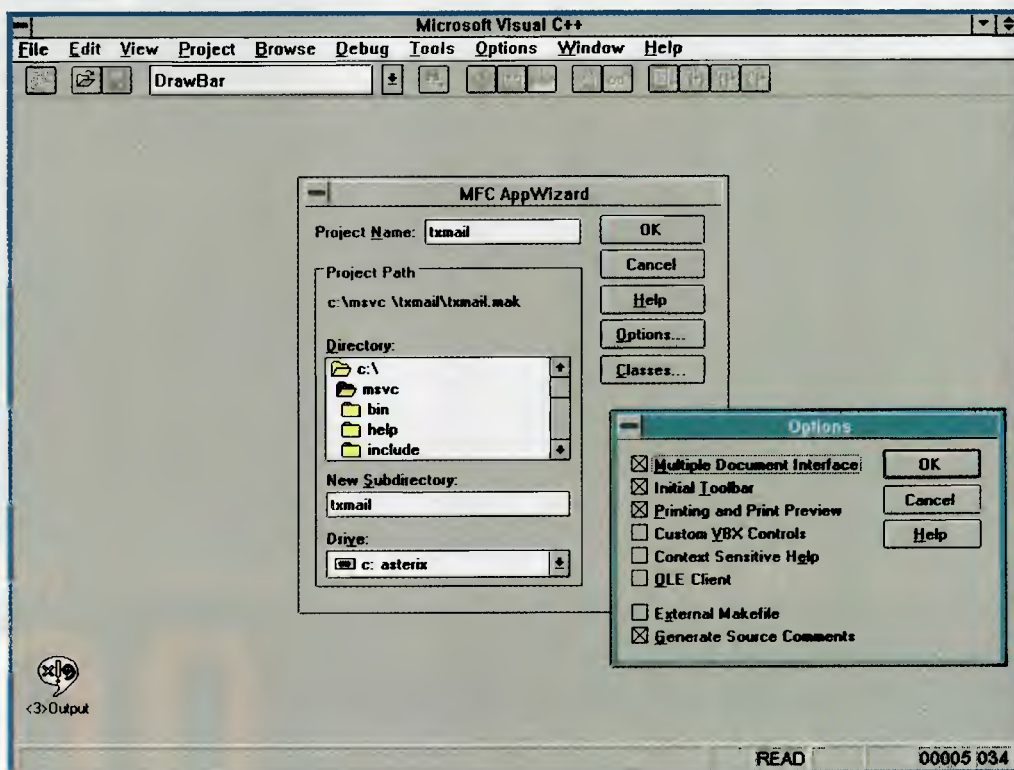
Studio. Microsoft C/C++ 7 had a whole bunch of resource editors, but each was a separate Windows application. App Studio has turned them into just three: a

menu editor, a dialogue editor and a graphics editor for icons and the like. Like the rest of VCPP, it is also highly integrated.

As a programming environment, VCPP is the first Microsoft product to nip on the heels of Borland's Turbo C++ for Windows for programmer friendliness, but there's a lot of power under the hood as well.

VBXs are Visual Basic drop-in controls. They're a fantastic short cut for all sorts of things. If you need a graphing function and can't be bothered writing your own, drop in a custom control from a third party and you've got it. Need communication capabilities as part of your database? Just drop in a comms VBX and you're done. Want a flash graphical gauge in a percent of process done window? No problem, another VBX takes care of that as well.

There are already hundreds of VBXs available from developers around the world, and VCPP uses them in much the same way as Visual Basic does. The Visual Basic community is a burgeoning one. If you want to join the lucrative VBX development market, VCPP can compile them for you as easily as it creates executable (*.exe) and library (*.dll) files.



Sick of customising a generic template to reflect what you think you'll need in your application? App Wizards create professional, bug-free templates in an instant. This is no trivial task. Before you write a single line of code, some applications can run to around four megabytes of associated files

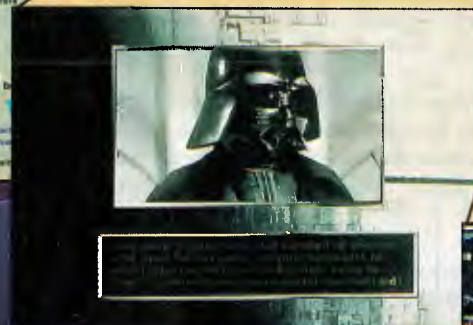
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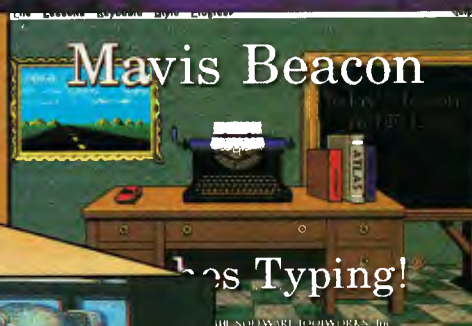
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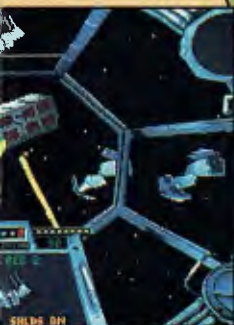
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There is probably no better launch- ing point than Visual C++.

VCP ships in two versions, the Standard and the Professional. The Standard edition includes all the components needed to create both Windows SDK and MFC 2.0 based applications for Windows, but it lacks optimised versions of the compiler, it can't churn out p-code (an executable format that takes up much less room than others) and it can't compile for MS-DOS. Why you'd want to use VCPP for MS-DOS, though, is something that will probably escape many. The Professional edition goes a bit further with the printed documentation, but if you're happy reading Windows Help off your screen then you won't really need it.

Why C++?

C++ is a language just coming of age. Although Windows was written mostly in C, more and more of the professional applications that run under it use C++ instead. The advantages are many, especially for a development company that's

pushed for time. C++ lends itself to much larger programming workgroups than does its forerunner, C, and object-oriented programming features such as polymorphism and inheritance mean that blocks of code are much easier to reuse, even in totally different contexts. The big advantages come in the form of fewer bugs and greater productivity.

If something isn't working right, then VCPP's browser makes it easy to examine the relationships between objects and code. You can even start with a function and work backwards, looking at every point referenced.

Creating a program is just one step in the software development process. Cajoling a computer to run at a speed slightly faster than the equivalent on an XT is another thing altogether.

In the dark old days of C, programmers had to hand-code something called a 'make' file that told a compiler everything it needed to know about creating an executable program from the source code. Visual C++ automatically generates its make files. Choosing optimisations is as easy as using a dialogue box, and it keeps track of where all the files are and which ones are needed for that compile.

Precompiled headers are easier than ever (if it can, it will generate them without your needing to make any decisions), and it can compile with the assumption that the software will run on at least a 286, or it can change its instruction set to take advantage of a 386 or greater processor. This generally results in a speed increase and a size decrease. Because Windows does a lot of swapping of code in and out of memory, any decrease in size is a significant increase in speed even before the code is profiled and tuned. This is also why developers love turning parts of their application into p-code.

Microsoft has been writing compilers for a very long time, and this really shines through. Although speed tests have often shown their compilers compile significantly slower than Borland's, their language implementations are widely recognised as the more robust.

Visual C++ is a software baby, but it is already a mature development environment with significant advantages over its closest competition. For any C or C++ programmer contemplating jumping into Windows programming for the first time, there is probably no better launching point than Visual C++. ■

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WinProbe

Whether you've got a problem to solve or are simply curious about a computer system, Landmark's WinProbe can supply all of the necessary detail, John Hepworth found.

Some drivers only want to drive, others like to know all the details about what's under the bonnet. It's much the same with computers. Some users, probably the majority these days, just want to 'drive' their machines. They don't want to know anything about the hardware and software except what they put into the tops of the keys and see on the front of the screen. Others are more curious, or need to solve a problem. They want to be able to find out as much as they can about the hardware and software of the computer they are using.

WinProbe is the answer for the curious or those with a computer problem to solve. It comes from Landmark, the authors of the famous computer speed testing program. For many years you could not go to a computer shop or enter a computer shop without seeing Landmark running, or read an advertisement and not see a Landmark speed mentioned.

Most diagnostic and information programs work only, or best, under DOS. WinProbe, as the name suggests, is totally Windows based. It probes through amazing areas of your hardware, and also takes a close look at Windows while it is running on the system.

Running WinProbe shows its main screen. This has a huge amount of information on it, using relatively small fonts. It is most legible on average screens when 640x480 resolution drivers are used. It is less legible, but still satisfactory, on higher resolutions.

So what is on the screen? Under the usual Windows title bar and ribbon menu is the main display area, divided into four

columns. At the bottom is a button bar. WinProbe functions and reports can all be accessed from the ribbon menu, and virtually all can also be quickly accessed from the button bar.

The right-hand column has a graphical bar-chart to display the current system workload. These are green for workload of up to about 60%, changing to yellow and finally red as the load rises. It also has little speedometer displays for monitoring System Load, Cache hit rate, System Resources and Free RAM.

The left three columns show information about the Hardware, Windows, and Critical Resources. Basic hardware infor-

mation shown is the CPU type and speed, amount of conventional memory and extended memory, display type, serial and parallel ports installed, if a network is installed, and finally the available drives — floppy, hard, network and logical.

The second column shows basic information about Windows — the version, mode (Standard or Enhanced), size and other details of the Windows swap file, and 32-bit disk access status. It also shows the number of tasks running, modules open, and open files. The third column, headed Critical Resources, has a couple of circular 'speedometers' to show the Interrupt Latency (pity there is no mention in the manual of what this means to help those who don't already know), and the amount of free Windows memory. Other vital information is shown in horizontal bar displays. These show User Heap, GDI Heap, Program Manager Heap, and more.

The main WinProbe screen, like virtually all Windows programs, disappears behind the window for another program when that other program is selected. But at times you'll want to keep at least some



The main display area of WinProbe is divided into four columns. The right-hand column has a graphical bar-chart to display the current system workload and the left three columns show information about the Hardware, Windows, and Critical Resources

of the WinProbe information on top of the active window of another program. Click on a button and the left three WinProbe columns disappear. The right hand column stays on top of all other windows to dynamically show you the system load graphs and speedometers. It's very educational as you load and run a variety of Windows and DOS programs, and can help you find out which program is hungry for processor time or system resources.

Having looked at the main screen, what detailed information is available? WinProbe covers a huge range, which can be displayed on-screen or printed out for later reference. Just a few headings from the ribbon menu will give the flavour.

The File Menu has entries to edit autoexec.bat, config.sys, win.ini and system.ini, with the editors for the last two conveniently accessing the various blocks in these files via the block titles. Other functions in the File menu find files, find duplicates, print one, some or all reports, display or hide various parts of the WinProbe window, and quit WinProbe or even Windows itself.

The Edit menu has just two entries, to cut or copy the information in an on-screen report to the clipboard for later pasting into another application, such as your word processor.

Diagnostics covers Audio, Communications, Floppy Drives, Hard Drives, Keyboard, Math Coprocessor, Motherboard, Mouse, Multimedia (CD-ROM and Sound Card), PCMCIA, Printer, RAM and Video.

Disk covers CD-ROM information again, Drive Types, Partition Information, Utilization, Smartdrive Information, and Smartdrive Settings. Under hardware are BIOS details, CMOS settings, and a map of the first megabyte of memory. The Installation Wizard, which is supposed to show available ports and interrupts, showed accurately all but COM3 on the test computer, one that hides this information from many diagnostic programs. Other hardware information covers the I/O Port List, Network Information, and much more.

The next entry on the ribbon menu is headed OpSys, and has functions to display information about the operating system, and shows details of how DOS and Windows are operating on the system.

The TuneUp menu has one entry that opens a window that displays a vast amount of information on ways to make Windows run faster and more reliably.

Some of it is very basic, some quite advanced, but there will be few users who cannot mine some gems here. There are functions to help clean up your *.ini files, to compare one *.ini file with another, and to edit *.ini files. Others gives information about Group files, highlighting any icons in your Program Manager that do not seem to have a program associated with them. Then there is information you can use to optimise memory and resources. The last three functions are used to save, restore or compare the win.ini and system.ini system files.

The second last menu entry displays information on your Windows Setup, Video and Printer Device Capabilities, Descriptor Tables, Exception Handlers, Memory Management, Module List, System Resources, System Metrics, Task List, VxD List, and finally the Window List. The last menu entry on the ribbon menu opens the usual Windows help.

The amount of information shown is huge, often too much to conveniently read through on-screen and digest fully. Luckily, you can also print out this information — one report, several reports, or all the reports. These can then be read at your leisure, or filed for later reference. Printing all reports creates a stack of no less than 47 pages of information!

WinProbe takes a very close look at your whole system, from hardware, to DOS, to Windows, and even reacts to the programs that are running. It is the fact that the information is gathered 'live' while the system is operating that is its greatest strength. It's also a potential minor weakness as it makes it possible for Windows or other programs to (potentially) hide information. As a result, WinProbe's information, while very complete and usually accurate, must, like the information from any diagnostic, be taken with thought and care.

Computers don't give up their information easily, and there has not been a diagnostic program ever written that is always 100% right on every feature on every machine on the market. WinProbe, on the test machine, appeared to perform in the accuracy stakes as well as the best and much better than most. I was only able to catch it out when it looked at the serial ports, as previously mentioned. Some reports accurately found details of all three ports, while others (the IRQ report in par-

ticular) could only find two. Not very surprising on a machine which seems to hide the IRQ for the third port from Microsoft's MSD DOS-based diagnostics as well! The only other problem is the manual, which is printed in a very small font, and also which does not always explain a term used in a report.

WinProbe will appeal to a special market. It would be wasted on a novice or those not interested in the technical details of their computer and Windows. It provides a vast amount of information in the on-screen reports which, when printed out, form a stack nearly 1cm thick. Troubleshooters, programmers, technicians, and the select group who are always curious about technical details, will find WinProbe a fascinating and very useful tool.

Landmark has a great range of other diagnostic, service, and benchmark tools and software. Details on these are available from Abel Business Computing Services, who also supplied the review copy of WinProbe, \$141. Contact Abel on (07) 376 7501. ■



WinProbe's workload window dynamically displays system activity



Personal Composer and World Beat

**Plus: Answers to queries on a music score
editor and printer, and a simple guitar
tablature program**

With
Eric Holroyd

A South Australian reader, who describes himself as a 'middle aged, middle quality organist' and who's graduated from a C-64 to a CD-ROM and Sound Blaster equipped 486, asks about 'CD programs for editing and printing music'. He wants to input some of his own compositions then print them out.

Dr Music Lab is a very good CD with loads of files to interest musicians (Communications Strategies, (07) 841 1055, has it for \$29.95) and I found a program on it called MusicEase v4.0 which should suit our friend down to the ground. It's a shareware music score editor that lets you create, edit, print and play music notation and its WYSIWYG (What You See Is What You Get) screen editor shows the musical score exactly as your printer will print it out, and in publication quality. Built-in intelligence allows it to handle many music details automatically, for example bar lines are inserted according to the meter, or you can insert them yourself wherever you like.

Input can be from MIDI keyboard in Real or Time; or you can import a standard MIDI file from another sequencer. MusicEase has much in common with word processors, and uses simple keystrokes such as Esc and Enter for editing mode. There, pressing the G key enters the note G; pressing Backspace deletes it. Blocks of music can be cut and pasted from one location to another and everything reformatted with a few keystrokes. The result is an easy to learn and use system that lets you create professional looking scores easily and quickly.

Being a shareware program there's a registration fee involved which you're expected to pay after trialling the program extracted from the CD-ROM. This usually gets you a bang up-to-date program

and printed manual and so on. MusicEase registration is US\$49.00, plus shipping costs, and there's an expanded version (MusicEase Professional) which does part extraction from ensemble pieces; allows 'print to file' for use with printers at other locations; can reduce or enlarge scores from 10% to 190% of normal size; and other things, which costs US\$99 plus shipping. MusicEase files are upwardly compatible with MusicEase Pro. Both are available direct from RMH Computer Services, PO Box 657, Beech Grove, IN 46107-0657, USA. Phone US (317) 782 9903. Email support via BBS at US (317) 784 2147 24hrs/day.

Another SA reader wrote asking for details of a guitar tablature program. A professional musician playing various fretted instruments, he prefers a system known as scordatura to notate the fret positions and note values. I found a tablature program on the Hot Sound and Vision CD-ROM (\$34 from LaserBaud, (03) 482 3876) which may have been just what he was looking for. This is Tab Transcriber and converts standard MIDI file music data to guitar tablature. It's menu and mouse driven with drop and drag menus, being able to adapt songs from other instruments for guitar, also providing an inexpensive way to build a library as many MIDI files are available on computer bulletin boards. Tab Transcriber recognises 27 different types of chords in all keys from a simple major right up to 13th flat nine flat five. It also detects and transcribes pitch bend, vibrato, and variable bend sensitivity.

Guitar music is often difficult to notate since the same note can be located at five different fret board positions. Tablature overcomes this by graphically identifying the notes to be played by showing both

the string and fret position. It doesn't indicate rhythm information, but listening to the sequence usually allows the player to pick up the rhythm.

Often used by music publications, Guitar Tablature is a fairly standard notation system for many guitarists. Normal guitar tuning is shown thus:

-----	high	E	string
-----		B	"
-----		G	"
-----		D	"
-----		A	"
-----	low	E	"

and tablature transcriptions done by Tab Transcriber look like this:

	C	Em	V	B 1/2
-----	1	1	0	-----
-----	0	0	0	-----
-----	2	2	2	2
-----	3	3	2	-----
-----			0	-----
1	2			

The verticals are bar lines, with bar numbers below. In bar 1, the notes C, E, G, C, G, are played successively. When notes are played together as a chord (as in bar 2), the chord symbol appears over the tablature lines. If a chord is played twice — like the C major chord in bar 2 — the chord symbol is not repeated. After the C major chord is an E minor chord. The V symbol indicates that the note below has vibrato applied. The B symbol means Pitch Bend and the number following it is the actual pitch value. 1/4, 1/2, 1, 1 1/2, respectively indicate values for quarter, half, full, and one and a half note bends. Registration for Tab Transcriber is US\$30 and its author is Michel Brazeau, 16 Ste-Madeleine, Rigaud, Quebec, J0P 1P0, Canada.

At the other end of the pricing scale is Passport's Encore (\$995 from Intellware, (08) 271 9662) which is a full-blown music editing and scoring system capable of



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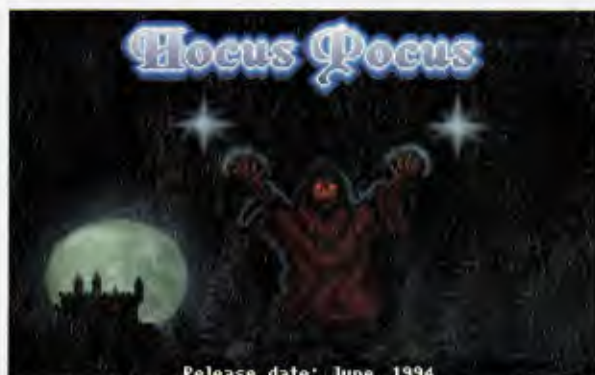
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CREAM 8482R

HOCUS POCUS

VGA action from Apogee



Terexin, leader of the Council of Wizards, is sending the young sorcerer, Hocus, on a special mission to prove his worthiness. This mission will take Hocus to 16 unique realms, each filled with unique dangers and enemies. Few have survived the Terexin's final test—for many it's a one-way trip.

Along the way Hocus will encounter dragons, imps, ghosts and 30 more unique creatures, demons and enemies. Survive, and Hocus becomes a full-fledged, card carrying Wizard. The other option is not so favourable.

Awesome and beautiful 256-color VGA graphics. After every two levels of play the level graphics, background and enemies completely change, giving this game unparalleled variety. Hocus Pocus is a action platform game, with exciting puzzles built into each level's structure.

Hocus is armed with a standard magic spell (he's not yet a full Wizard, after all), but he can find several potions that give him a temporary boost of magical energy. There are potions that give Hocus the ability to shoot rapidly, jump higher, teleport and fire a devastating energy blast, among others.

FEATURES

- * Smooth 360 degree scrolling, with a parallax background.
- * Over SIX MEGS of 256-color VGA animated graphics.
- * Four episodes with 36 huge levels!
- * Over 30 different monsters, plus four huge bosses!
- * Incredible new Apogee sound engine, with a dozen theme songs during play. - multi-channel sound effects, with up to 8 effects playing at once! - supports all major sound cards including: Gravis UltraSound, SoundBlaster/Pro/16, Pro Audio Spectrum 16, AdLib, Wave Blaster, Sound Man 16, Disney Sound Source, Tandy Sound Source, Sound Canvas, and General Midi. - individual control of music and sound effects volume.
- * Save/restore options, selectable skill levels, four cheat passwords!
- * Supports keyboard play & joysticks. The game also works with your Gravis Gamepad!

Requires 386SX or better, 567K (580,000 bytes) free RAM, VGA graphics and 10 MB hard disk space.

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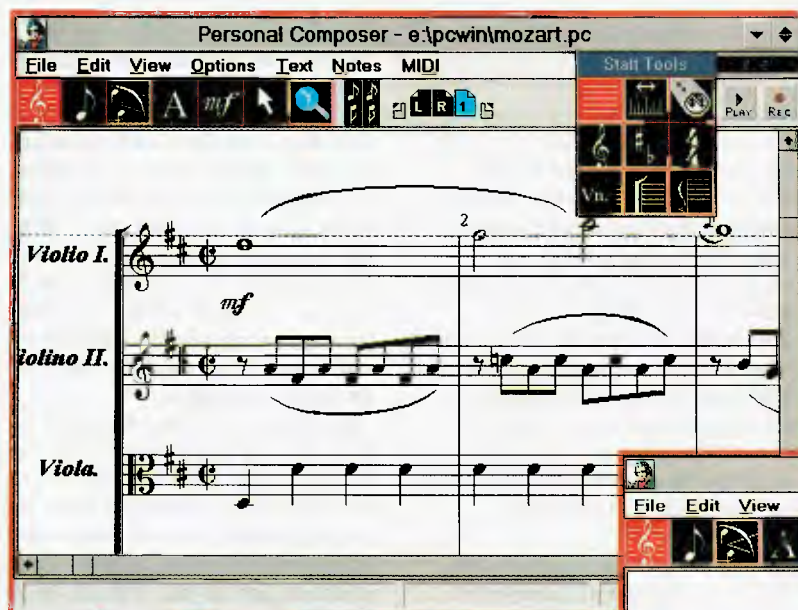
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The programmers have taken full advantage of the Windows 'icons and mouse' environment and a series of toolbar icons access all the major functions. These are extremely intuitive in use and I was able to do very many things before I found it necessary to open the manual. A 'staff' icon opens a palette of nine more icons covering such tasks as setting key and time signatures, clef and note spacing and so forth. This palette's 'staff tool' lets you move, swap, add and delete staves as well as moving measures and is very useful. Other toolbar icons cover text entry, note and voice selection,

engraver quality print-outs, and which has a proper tablature system (amongst many other excellent guitar features). It'll convert standard notation to tablature, even 'parsing' a chord played in from a MIDI keyboard into a properly notated and named chord which can then be displayed as a chord grid. Dr T's Copyist (\$399 from Music Link (03) 429 9299) is a dedicated music printing program which has a guitar chord and grid feature, too.

As to shareware on CD-ROMs: I'd suggest to this reader, and all others with CD-ROM drives, that they get current catalogs (they're usually free) from *Your Computer's* advertisers in the CD-ROM area so as to keep up with what's now available in this fast growing field.

Personal Composer

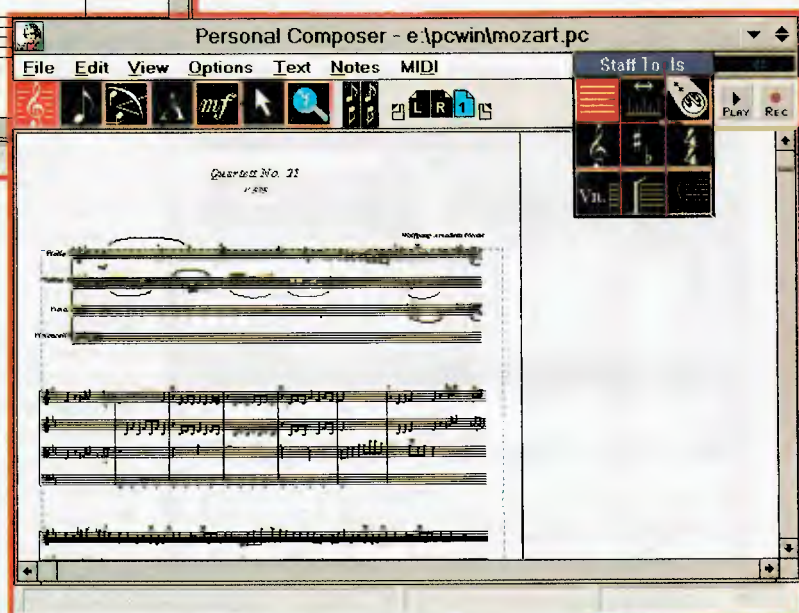
Personal Composer is music publishing and sequencing software for Windows. I first saw a version of this program back in '85 on the Commodore 64, and it had been on the market for two years then so it's probably a strong contender for the longest running music software. Upon upgrading to the Amiga I saw an update of the program there and now here it is in a PC Windows version. And very good it is too!

Every music program I've seen approaches the subject from a different angle and Personal Composer does some things differently from, say, Encore and Musicator (but then they're quite dissimilar to each other anyway). The first thing I saw was that the normal music edit screen opens up with just a magnified portion of the musical page you're work-

In Personal Composer a screen opens up with just a magnified portion of the musical page you're working on. A Quickzoom feature lets you see the full page though

ing on, in very much the same way that a spreadsheet program shows your work in a scrollable 'window'.

A Quickzoom feature lets you see the full page though — in exactly the way that it'll be printed — and my illustrations respectively show those views of the same piece of music, Mozart's 'Quartett Number 21'. If you want a fuller view to work on it's simply a matter of clicking the Zoom tool (keyboard equivalent is the '7' key) and you can enlarge the view in twelve increments or shrink it the same way by holding down Ctrl. This is very good and I liked the way it allowed me to see as much or as little of what I was currently working on. I do like to work with four bars to a line and was able to do that easily. Yet another keyboard alternative is to hold Alt and use the plus or minus keys. The key to using this program would be to learn all the keyboard alternatives (two manual pages list them all anyway) and use them in conjunction with whatever mouse commands you find comfortable.



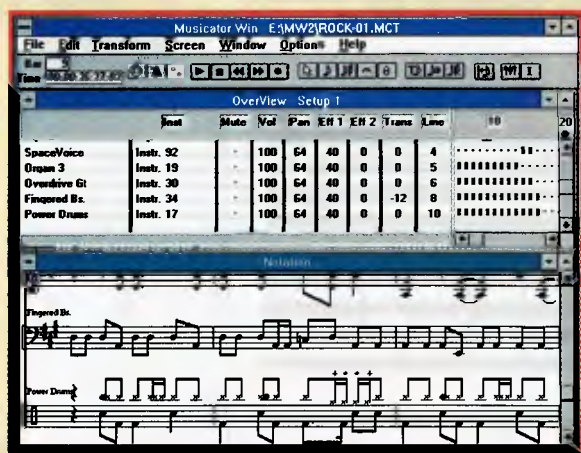
text and graphics, and any other musical tasks — such as placement of clefs, coda signs, Dal Segnos — that I could think of.

Guitarists will love the fret function available from the Text and Symbols toolbar icon as it allows both the standard fret symbol for a chord plus the chord name to be included with the music. Or you may choose to have either displayed by itself. Chord symbols range from plain major and minor to Dom7(+9-5) and may be shown with a specific root note if desired.

The more I got into this program, the more I was surprised at its depth. For example, it uses 12 different cursors (and you get used to recognising them pretty quickly, believe me) to do a variety of jobs. When placing or moving staves the cursor actually becomes a staff, when zooming it becomes a magnifying glass. For moving horizontal lines it becomes a double ended vertical arrow, and vice versa for moving vertical lines. It's all very neat and clever, but never more so

HOT GOSSIP

► Musicator v2.0 Win (\$495 from Roland, (02) 982 8266) is now released and has many new features. A new integrated sequencer window has drag and drop editing; there's 'on the fly' punch in and out; multiple MIDI ports using 32 parts and 64 channels; synch to SMPTE, MTC, and MIDI; much easier instrument selection and MIDI channel configuring; in fact more of everything and easier to work with. Musicator now handles all kinds of tuplets (including crotchet triplets), there's multi measure rests, an 'Undo' feature that lets you go back through the last 8 events, enhanced bar numbering, improved tie display, and an export feature which lets you paste notation into your WP or DTP program. Educators wanting to put musical examples into text pages will love that one!



► Melbourne's Music Link, (03) 429 9299, advise several Opcode items of major interest to Mac musicians. The newly released Overture (\$899) is described as 'fast and flexible' professional music engraving software for the Mac and is said to be an easy to use yet comprehensive music notation program. Also just out is v1.2 of their sequencing and notation package Opcode Musicshop (Mac price \$299), with several new features. Musicshop is also available in the Easy Music Starter Kit (\$399) which includes Band in a Box and a MIDI interface. Musicshop has an upgrade path to Opcode's pro sequencers Vision and Studio Vision.

► Music Link are Dr T's distributors and announce a price reduction in Quickscore for Windows to \$199, with Quickscore v3 for DOS now priced at \$149.

► There are still more sound cards from the Turtle Beach guys! Mainly Multitrac advise that the Monte Carlo 16-bit card (\$249) comes complete with wavetable sounds via the new V-Synth software which has GM-compliance, 32-voice polyphony and Windows compatibility. V-Synth requires a 486 to run, and being software, can be used with other sound cards to upgrade from FM synthesis. Bundled with Monte Carlo is the Turtle Beach's Sierra Audio Rack of CD-ROM player, OLE-compliant sound recorder, Mouse Player and the 'Stratos' entry-level song writing software. A selection of CD-ROM interfaces is available.

► A higher end sound card is the Tropez (\$499) which comes with the Sierra Audio Rack of goodies, is fitted with the ICS WaveFront ROM wavetable, includes the WavePatch sample editor for users to create original instrument sounds, and has SampleStore which allows *.wav files to be used as MIDI instruments. The card's Hurricane architecture maximises throughput whilst minimising CPU usage so as to free up the computer for video and animation and so on.

► From Multi Learn Australia, (02) 858 2366, comes news that they're stocking the new Roland SK50

computer music workstation/keyboard. With 61 velocity sensitive keys, a high quality onboard speaker system, two headphone sockets and stereo line in and out, it has a full Roland Sound Canvas module fitted complete with MIDI in and out. Serial interfaces for PC (RS232) and Mac (RS422) are fitted and the price is \$1595 complete.

► Multi Learn also has a 61-key touch sensitive Kawai keyboard with full General MIDI sounds, 3 drumkits, built-in speaker system, plus MIDI in and out for \$699 which is a good entry-level MIDI synthesiser keyboard for home computer musicians.

QuickKeys system which complements the mouse and icons as I said earlier. The keyboard is programmed so that the arrow keys move the cursor in four directions; Enter acts like the left mouse button; Del is like the right mouse button; note values are set by pressing the initial of the note, 'W' for whole note, 'H' for half note and so on; plus and minus keys add sharps and flats; and notes can be focused for moving by holding Ctrl whilst pressing an arrow key. Most intuitive as I said earlier. Further QuickKey operations are listed in the manual.

QuickFonts in Personal Composer are those that you've nominated to be used for specific tasks (if you don't like the preset ones that is). A dropdown menu lets you set the fonts and their relative sizes for song titles, composer, arranger, tempo indication and so on, with up to 24 QuickFonts being recognised as your personal short cuts by nicknames that you assign. I like Renfrew in 24 point Bold as a song title and Eurostyle 12 point Bold for lyrics for example, and found it a breeze to set them up for permanent use with all new songs.

As with all good music software you may enter music in real or step time from a MIDI keyboard in addition to mouse or QWERTY keyboard step time entry from the notes and symbols palettes. Extra touches provided by the Personal Composer programmers include: an automatic swing feel; a 'human touch' playback feature (so that your music doesn't sound mechanical); four independent voices for each staff; user definable staff sizes to allow up to 30 staves per A4 page and 40 staves on Legal size paper; four lines of lyrics in any font; part extraction from a MIDI file with automatic transpose; repeat bar lines which play properly during MIDI playback; and a great deal more.

The Windows 'click and drag' system is used to reposition individual elements and reshape or resize whole or part measures as well as allowing cross staff and split beaming of quavers. Several functions are completely automatic too, with both engraver quality note spacing and note beaming happening without any user input being necessary.

I felt the program to be very well set up for MIDI users, with some surprisingly esoteric inclusions for a program in this price range. The most notable of these is the facility to handle up to eight MIDI interfaces (provided that you have the available IRQs) which give a staggering 128 MIDI channels. Setting up your interface(s) is easily done in a special

than with the feature that the makers call 'focusing' an object. Briefly, every object (notes, accidentals, slurs and so on) has one or more 'handles', which are spots where the mouse cursor needs to be placed in order to select or edit the object. When the cursor is brought near a handle, the cursor's shape changes to indicate that the object is now 'in focus' and can be clicked on for editing. Sometimes an object may not have a handle at all, in which case you can click anywhere on it

to focus it. This all takes a lot longer to explain than to actually do, and I found myself thinking what a brilliant idea it was, and why hadn't it been done before?

The excellent manual is ring-bound to stay flat on the desk, is very comprehensive and readable, and has lots of illustrations and sensibly arranged chapters. I found the basic tutorial one of the best I've yet seen, and certainly one of the easiest to follow. It covers all the program's functions and outlines its unique

window with another newly introduced feature which the programmers call 'MIDI Timbre' being set up from yet another menu. This is defined as being a Port and Channel combination and an initial synthesiser patch, with up to four Timbres per stave (to tie in with the four independent voices per stave) allowable. Again, it's easy to set up from the appropriate menu and is just a matter of setting Port A to Channel 1 to Acoustic Grand Piano for example.

Conditions for MIDI recording are well covered and offer you a metronome click and a countdown, plus the opportunity to record to a single staff or split your input over multiple staves. Automatic 'Quantize', or rhythmical tidying up of any sloppy playing (I almost always fumble something when recording from the MIDI keyboard and love this feature!) to a set note division right up to sixty fourth is built-in and you may also do Punch In/Punch Out repair work too. If the 'take' of your song is a good one except for two or three bars in the middle, you can re-enter those bars just by setting their numbers in the Record Setup dialog box. Record them again from the MIDI keyboard and you won't play over anything outside of those bars. I like that one!

I've only covered the major points of Personal Composer and don't have space to go into the finer points in-depth. There's a lot more to the program and I think that the years of dedicated programming and refining have produced a fine program with the kind of 'feel' that many computer musicians are looking for. In my opinion Personal Composer is a very viable alternative to existing sequencing and publishing programs available on our market. It's a powerful program, yet easy to get into, and represents good value for money.

Personal Composer, \$595, is distributed by Mainly Multimedia, (03) 558 1155.

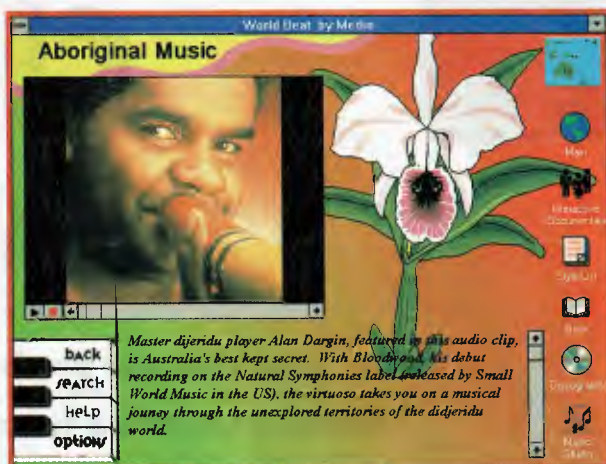
World Beat

A nice CD-ROM in the series by the Medio company, World Beat literally takes you around the world on a tour of musical styles. Whilst setting up under Windows it checks your sound card and if you have a MIDI setup it'll address that automatically to play its many fine tracks.

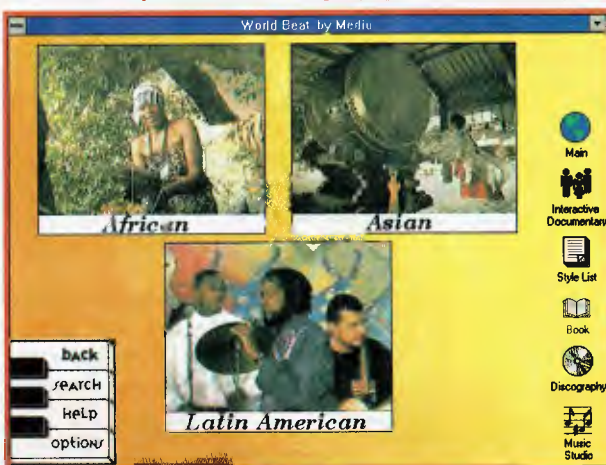
Hard to categorise, the program is at once a database of recorded music with multiple search options, an interactive documentary, an encyclopaedia, and a comprehensive discography. The last one features information as used in the previously reviewed 'All Music Guide' CD-ROM but using a different type of search and look up which I found fast.

The travelogue-style documentary shows pictures of various countries whilst playing music typical of the region and displaying interesting text information. The compilers present it in an easy manner which kept my interest level high. Much of the text from this and other sections like the book-style encyclopaedia (click this icon on the main screen for in-depth textual displays) can be sent to the printer for hard copy.

An icon driven 'list of entries' has various pics alongside to signify the type of listed items. I counted three dozen full motion music videos of things like an Andean Festival, Celtic Music and so on, where well recorded atypical music accompanied a video of the region, its dancers and musicians. There were many audio tracks listed, too, all of which displayed screen info whilst playing. A number of still photographs of various areas are accompanied by relevant music and it's an interesting CD-ROM all round.



World Beat is a database of recorded music, an interactive documentary, an encyclopaedia, and a comprehensive discography



Whether you're a student of music, play an obscure musical instrument, or are just curious about the various musics of the world, I'm sure you'd find this program as enjoyable as I did.

World Beat, \$79.95, is distributed by Dataflow (02) 310 2020. ■

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Christmas wish list

Eduainment products can be used to develop anything from reading readiness to problem solving strategies

With
Anne Glover

Christmas time is a great time to give an 'edutainment' product — one that is fun to use and educates at the same time. Eduainment products can be used to develop anything from reading readiness to problem solving strategies. Other programs that are suitable at this time of the year are products that can be enjoyed by the whole family. The following selection of programs will give you something to think about for everyone in the family.

Fatty Bear's Birthday Surprise — this is a real cutie for the little ones. Fatty Bear takes your child on a mini adventure

through the familiar territory of a home. Collect items, make decisions and go back to play a few games. Ten megabytes of hard drive space is required. Fatty Bear comes in MS DOS and Macintosh formats, and is priced under \$80. It is distributed by Electronic Arts, (075) 911 388; fax (075) 916 068. A full review appeared in the September edition of *Your Computer*.

Crayola Art Studio

For a paint program with a difference check out Crayola Art Studio. The Art Studio is designed for children aged from 6 to 12. It allows kids to do all the art work they like but has heaps of personality. A crazy line tool lets you make some very weird fences or messages. A transformer (no, not a robot), lets the kids reshape their stickers with ease. Use crayons, markers or watercolours, add shapes

and some magic effects or create your own. If it looks daggy, blow it up and start again. Best of all add some cute little animated toys with the click of a button. These little friends may be a monkey, a cat or a person and all the animation is ready to roll. You just select the character and place it where you wish on the screen. The children can't manipulate the animations, they are all set. They can however put a few on the one screen, so the dog can chase the cat, and so on.

A whole bunch of activities are included, from badge makers to puzzles, making it a great activity centre for those aged from 6 to 10.

Crayola has also put together a similar product for the younger set. The Amazing Art Adventure has many of the same tools but target the three to six age range. It doesn't contain the animation feature but has plenty of activities for preschoolers. A full review of that product can be found in the August edition of *Your Computer*. Both products are distributed by Micrografx, (02) 415 2642, fax (02) 415 2641, and are priced at \$95. They come in MS DOS format and require a 386 or better, running Windows 3.1, with



Crayola's Art Studio is a paint program with personality. It makes painting even more fun



4MB of RAM and 12MB of hard disk space. A sound card is recommended.

Kid Zoo — Kid Zoo is another one for the preschoolers, this program provides a combination of information and fun. Learn all about the other little animals in our world. Kid Zoo is priced at \$69.95 and comes in Macintosh and MS DOS formats. It is distributed by Sega Ozisoft, (02) 317 0000; fax (02) 317 0999. I looked at Kid Zoo in the April edition of *Your Computer*.

Little Monster at School

I have a 'little monster' who will be starting school next year. No, he is not really a monster, just a little guy who has outgrown preschool and wants to get into the fast lane as quickly as he can. He quite enjoys Little Monster Goes To School even if he doesn't identify with the monster.

This 'Living Book' on CD-ROM is a useful product for children about to start school. It provides you with the opportunity to discuss a whole range of issues with your child. The program is not designed to introduce a child to school, but can be used for that purpose. You see, all Little Monster's friends are monsters, and they are off to school for the first time. They do the expected things like meeting the teacher, eating lunch and doing some work with their A B Cs. This allows you to talk about different teachers, where and when lunch is eaten, making friends and school work. Many kindy kids go to school with preconceived ideas that are quite incorrect. Running through this program will let you discuss all sorts of little things, not only to set their mind at rest but to sort out any weird and wonderful notions they might have. Some children think they will learn to read on the first day, others think they can wonder in and out of the classroom at will, or that they are the only one that doesn't know the school procedures. The more you can talk about it all, the better settled your child will be in kindergarten.

Little Monster Goes to School not only shows the good stuff, it also shows up a problem the monsters need to face. Then it shows a happy solution (of course). This provides the opportunity for you to discuss the problem times that may occur and to develop a few problem solving strategies with your child.

Little Monster Goes to School is a cute program. It is even more valuable as a learning tool for all those 'little monsters' about to start school.

Little Monster Goes to School is dis-



Little Monster at School is a Living Book especially for preschoolers and kindy kids and their families

tributed in Australia by Dataflow, (02) 310 2020, fax (02) 319 2676, for \$109.95. This program comes on a dual format (Macintosh and MPC) CD-ROM.

Putt Putt Goes to the Moon — Putt Putt is a cute interactive adventure for children aged between three and seven. Many kids will love to come back to this one, others may feel it is all over after one turn through. Check out the review in the November edition of *Your Computer*. This product is priced under \$80 and comes in MS DOS and Macintosh formats on disks and CD-ROMs. It is also distributed by Electronic Arts.

Gizmos and Gadgets — this is one of my all time favourite educational games, and Gizmos is still a real favourite in our household. This program is ideal for children aged from seven to ten but younger children will want to help out, too. It is one of the Super Solvers from the Learning Company and allows children to develop their problem solving, reading and scientific skills as they play a game to build the best vehicle. Gizmos is also distributed by Dataflow and is priced at \$89.95. It comes in MS DOS format. For a full review grab the March edition of *Your Computer*.

The Even More Incredible Machine — the other great problem solving and strategy game is the Even More Incredible Machine. This program requires the child to use tools to solve the problems creatively. For example, they may need to set off a cannon using a trampoline, a balloon and a magnifying glass. They can also create their own weird and wonderful creations. A review of this product appears in the May edition of *Your Computer*. The Even More Incredible Machine is available in MS DOS format and is priced at

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COMPUTER TYPE:

- ☐ IBM (31/2) ☐ IBM (51/4) ☐ AMIGA

Check out the nasties from all nations and learn as you investigate

\$69.95. It is distributed by Sega Ozisoft. **Dangerous Creatures** — this CD-ROM provides heaps of exciting material for the whole family to explore. Check out the nasties from all nations and learn as you investigate. Meet poisonous fish, aggressive mammals, spiders, snakes and reptiles. Watch mini videos, listen to the sound of the animals and check out the weapons they use, then learn about endangered habitats. **Dangerous Creatures** contains plenty of useful research material for primary school children and throws in a few activities as

well. Wonderful photos are used and then it is up to the kids to select their own areas of investigation. A child with a reading age of nine will handle the text, but people of all ages will enjoy this one and they are guaranteed to learn a lot more about animals. It's an ideal program for the family to explore together.

Dangerous Creatures is produced in the USA by Microsoft and is priced at \$99. It comes in Windows and Macintosh formats and requires a double speed CD-ROM drive and a sound card.

Theme Park

Theme parks bring back bad memories for me. You see I have the reputation for being the first to throw up on any of those stomach churning rides! This program makes me feel a bit queasy, especially when I hear a whole crowd of people doing just that.

This is the latest of the simulation games. It appeals to the younger set but will have whole families challenged to get it right. Buy your land, hire some staff, select from the initially limited range of

rides and set up your dream park. This involves laying all the paths, locate the food stalls (and the toilets) and don't be too skimpy on maintenance workers or repair people. You can hire some entertainers in their octopus or teddy bear outfits to keep the customers happy. As owner of the park you can take a turn on some rides, wander through the maze, slip down the snake slide and don't forget to have a ride on the roller coaster. This gives the kids a short animation to watch to simulate actually being at the park.

Rides vary in their initial cost, their reliability and their degree of customer satisfaction. So it is not just a matter of buying everything available. If you over spend you may need to fire staff or you will go bankrupt! Of course things do go wrong, it starts to snow, people don't come to the park, rides catch on fire and it all becomes 'disaster land'. This is where the real skill comes in and it will take a while to build the park you covet and run it successfully. Later you can move up to parks in more desirable locations with some top rides. Always remember the customers must be kept happy. Read their minds and you will see they want more food, better rides, and all the mod cons of a successful theme park. They are pretty demanding, but it all brings together a simulation that is easy to get started in and progressively more difficult.

Theme Park is an ideal program for the whole family. The preschooler will love to watch the rides and the junior primary child will want to have a turn. Those from 10 to 15 will hope to build the theme park to beat all theme parks. This program will have the children thinking, reading and planning. Best of all it will allow them to experiment, see the re-

sults of their actions and then make adjustments to achieve better results.

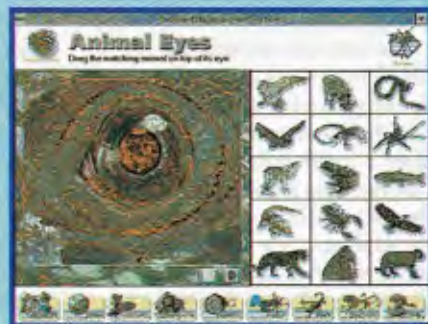
The opening animations in this program are amazing. Junior is telling dad he is bored (sound familiar) so a man comes out of the TV and takes the boy and his family to 'Theme Park Land'. It is not quite like *Surfers Paradise*, but just as artificial. Despite being such a sophisticated program with heaps of options, various levels of difficulty and amazing animations, it has one of the clumsiest installation procedures I have seen in a long time. Do we really need to know our IRQ address and completely ignore Windows in 1994? Why can't this program do those simple things for us if the rest of the program is so with it?

Theme Park is produced by Bullfrog and distributed by Electronic Arts. It comes on floppy or CD-ROM in MS DOS or Macintosh formats requiring an MPC setup. It is priced around \$90.

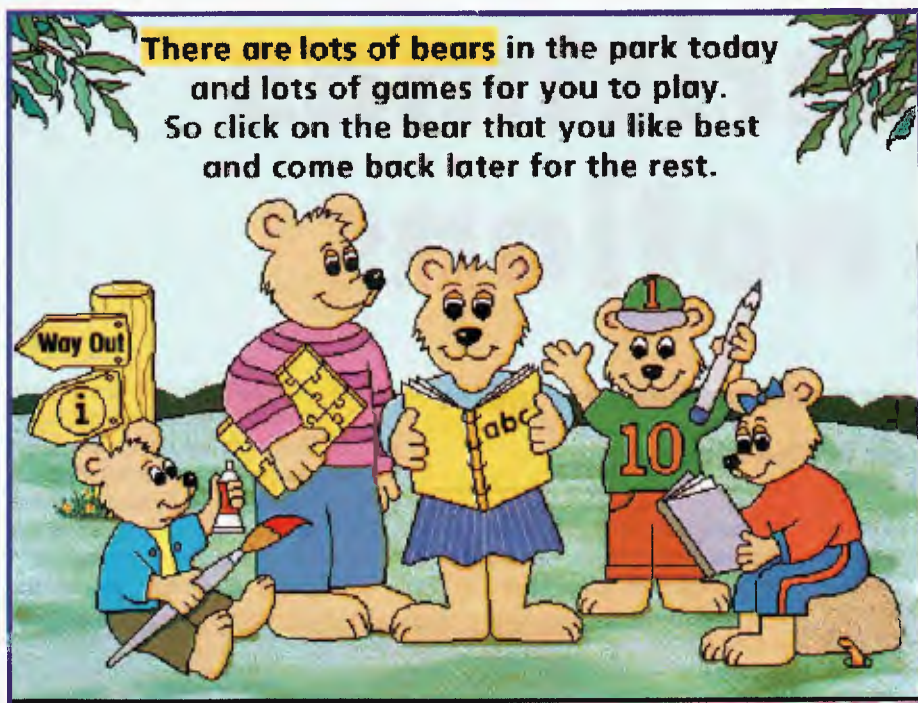
Sim City 2000 — *Sim City 2000* is one for the teenagers with a hunger for power, it will keep them constructively occupied for some time. See more details in the September issue of *Your Computer*. *Sim City* comes in MS DOS and Macintosh format and is priced at \$109.95 and \$99.95 respectively. It is distributed by Electronic Arts.

Playtime in the Park — this is an all Australian product that won the early childhood award at this year's Australian Interactive Multimedia Conference. It also picked up the award for best product overall. It is a nice product and combines a story on disk with some more interactive activities. With teddies as a theme it is sure to be a hit with all the under fives. For a full review go back to 'Release Updates' in the February edition of *Your Computer*. Priced at \$69.95 it comes on a

DANGEROUS CREATURES



Dangerous Creatures can be explored in many ways. Search for your animal by location (left); view it in close up and watch a video (middle); then relax with a little game (right). It's all there in **Dangerous Creatures**



Playtime in the Park is a cute program for preschoolers. It features lots of teddies but has a very solid educational side too

CD-ROM in MS DOS and Macintosh formats and is distributed by Firmware Design, (047) 21 7211; fax (047) 21 7215.

Where in Space is Carmen Sandiego? — yes, Carmen has been around the block a few times but she still provides us with a measure to compare all edutainment titles to. The latest release is a multimedia version with more clues to help a wider age range. Those from nine years (with some help) and up will be right into this program. See a full review in the September issue of *Your Computer*. All the Carmen Sandiego titles are distributed by Dataflow, come in MS DOS and Macintosh formats, many also come in Amiga format, too. The price varies from \$79.95 and \$99.95 depending on the format. The newest version requires an MPC computer.

Arts and Letters Home and Office Pack — for upper primary and secondary students as well as parents that want a creativity program with a bit more challenge, this may be just for you. This bundle provides heaps of clip art, a couple of drawing programs and even a space encyclopaedia for one low price all on two CD-ROMs. To install it all on the hard drive takes up 57MB of space, but you don't need to install all the programs. Indeed the family may not intend to use them all. However there is something for everyone (except those under eight), in this

bundle and as such it is a neat gift for the whole family at Christmas time. Even younger children will benefit from many of the print-outs.

Picture Wizard is the art program for the younger user. It has plenty of activities for a rainy weekend and will take some time to get right into. Those under eight will appreciate older brothers or sisters printing off the paper dolls, dinosaurs and paper aeroplanes, also mazes and greeting cards. Those around eight and up to 13 will find the lessons or projects useful to get them going.

For the older, more experienced user, the pack contains Arts and Letters Draw, a more sophisticated drawing program that allows shaded transitions of colour, simple rotation of items, and a magnified view of your work. Heaps of clip art, much of a very high quality is included. All up this is a pretty daunting package, not one for the real beginner. However, all the manuals are provided so go through those at your leisure. There is bound to be something new to find even after many months of use. This bundle with the mostest is available for \$199 and is distributed in Australia by Alkira, (02) 876 8000. It is available in MS DOS format and requires a 386 or better with 4MB of RAM and a CD-ROM drive. A sound card and double speed CD ROM is recommended. ■

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Christmas notions

Here are some computer notions for under the tree or in the stocking ...

This is certainly the time of the year to indulge yourself a little bit — or even a whole lot! Of course it's also the time to reward those close to you for being good (or, at least, not so bad). Here are some ideas — most of them are quite inexpensive — and all of them are fun, educational or just downright useful.

Stereogram Generator: A fun program we came across recently in the new Budgetware catalog is Popout Stereogram Generator. It takes any Windows bitmap and generates one of those random-dot 3D images that have featured so often this year in posters, books, postcards and even videos. It's great fun — especially after a few Christmas noggins. The kids love seeing their name 'pop-out' at them and, if you've got a colour printer, you can use it to send 'subtle' messages on birthday cards and the like.

Windows Paintbrush is recommended

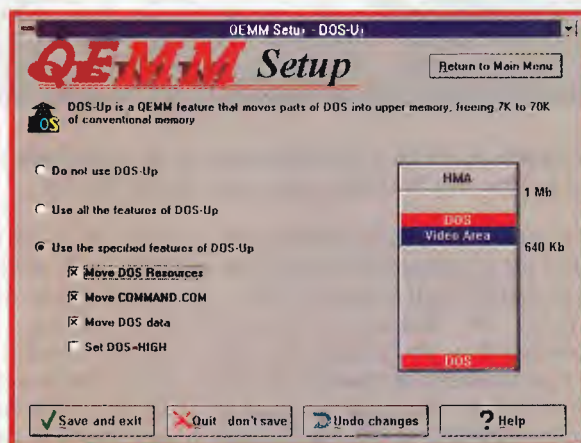
to create the images, but any colour graphics program would do, so long as it can generate a 16-colour *.bmp file. The

colour limitation is a function of the way the stereogram is generated: black is used as the most distant layer and then other colours in the standard 16-colour palette are used for closer layers, with white being the nearest to the viewer. Popout Stereogram Generator is shareware and is available from Budgetware,

1800 022 064, for \$10 (post and packing included). The company has just issued its Windows Shareware catalog. Ask for a copy: it has over 200 new programs in it.

QEMM 7.5: If you're a serious games player and have experienced 'out of memory' problems, it's time to get the best memory manager around: QEMM. Quarterdeck has just released version 7.5 for DOS and Windows — it works with all software, of course, not just games. QEMM 7.5 has a new version of Manifest — the system reporting and diagnostic utility — which now reports on

memory usage by Windows and its applications as well as extensive reporting on PCMCIA devices and IRQs. There is extensive support for Stacker 4.0 which can reduce memory usage by up to 32KB, and ThinkPad users will be glad to know that these systems can now be configured with QEMM. If you have an 'unusual'



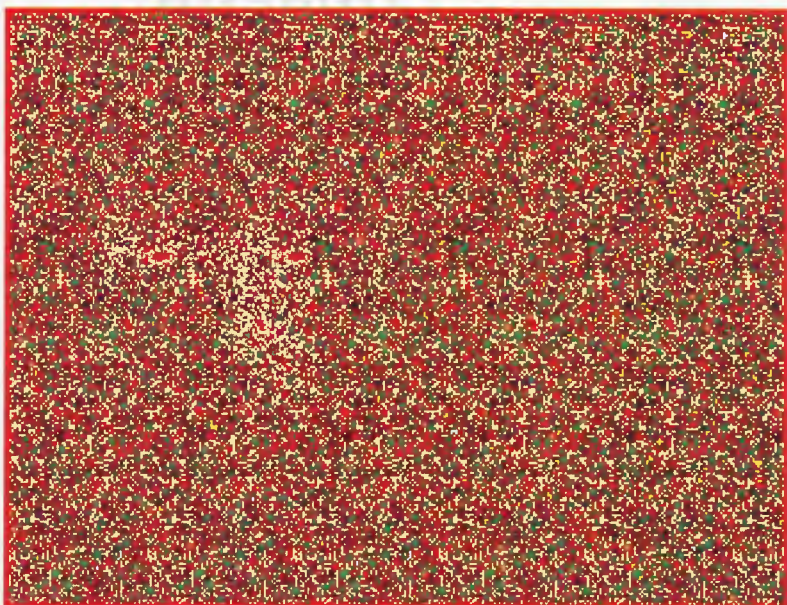
QEMM 7.5

BIOS, Stealth (the high RAM mapping utility) will free more high RAM than was previously possible. These are only some of the enhancements — suffice to say the best memory manager has gotten better.

For a limited time, QEMM 7.5 will be bundled with Gamerunner, which optimises the system for game playing and allows a certain level of 'cheating'; the SideBar Windows application launcher; PC-Kwik which loads Windows faster; and PGA Tour Golf. All that for \$139; registered users of previous versions of QEMM can upgrade for \$63. For more information, call the Quarterdeck Hotline on (02) 369 1583 or fax (02) 369 1912.

Art for Kids: Here's one to keep the youngies amused for hours (what better gift to yourself for the holidays) while they learn about 'computers'. Art for Kids is a new Australian drawing package de-

**Popout
Stereogram
Generator**



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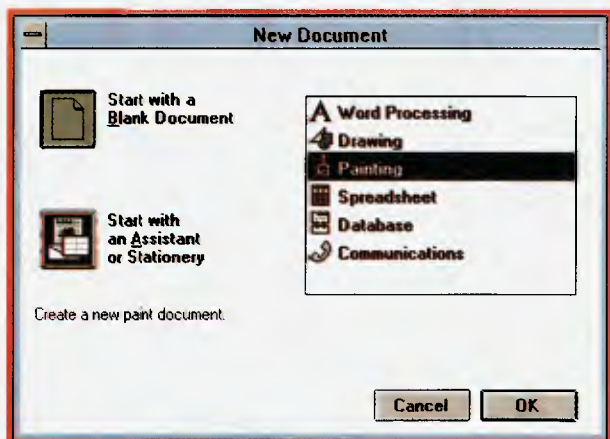
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Art for Kids

signed for the youngest members of the family (from 3 up). It's ideal for those in that age group which is still mastering fine coordination because pictures can be 'drawn' using a large collection of stamps — these include the likes of a smiling sun, trees, vehicles, fruit and various animals, to name a few. Words and numbers can be added to the drawing also using stamps. There are also conventional drawing tools for 'scribbling'. Various actions in Art for Kids are accompanied by appropriate noises — 'Whoops' for undo, for example — so the fun is enhanced with a sound card. Art for Kids, \$59.95, is from Big Earth Publishing, (02) 81 3000; fax (02) 81 1606.



ClarisWorks 3.0

ClarisWorks: If you recently bought a new computer system and it was bundled with one of the big integrated suites, you've probably discovered 1) it's got more bells, whistles, feathers and fandanglers than you could ever use, and 2) it takes up a helluva lot of valuable disk space. In that case you'll be interested in the newly released ClarisWorks 3.0 — it needs less than 9MB for a full installation. That gives you a word processor, drawing

and painting packages, a spreadsheet, database and comms program. These are not the fanciest programs around, but they have all of the basic features and then some.

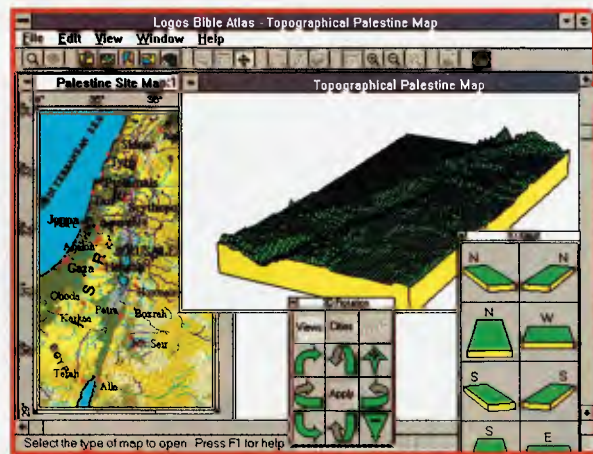
At \$174 ClarisWorks 3.0 is a bargain, and the recovered disk space is a bonus — (02) 452 8585, fax (02) 975 6083, for your nearest dealer.

Bible-base software: A timely gift for the season would be one of the many Bible-based products from Koorong Books. The company's 16-page catalog is chocka with DOS and Windows software. It includes such products as QuickVerse (\$99), a Bible study tool; PC Study Bible (\$99), with a range of Bibles and references; Word for the Day (\$69), a personal organiser; Easy Verse (\$34.95 for the King James Version); Bible Library (\$49), a CD with 29 reference works; PC Bible Atlas (\$99, pictured); as well as Bible-based games, crosswords, quizzes and general software. Koorong has offices in all states — (02) 857 4477, fax (02) 809 6207, for your nearest dealer.

Professor C.D. Smart: Perhaps you know someone who is still 'afraid' of using a computer? To get the most out of a computer, there needs to be confidence in using the darn thing. Professor C.D. Smart may have an awkward name, but the product works. This is because it forces students of all ages to use the hands-on approach, and they have the benefit of learning whenever it suits them. One hour here, twenty minutes there, during the lunch break, while the baby is asleep, or at the weekend. And — sections can be repeated without feeling embarrassed. This instructional CD-ROM is particularly realistic as you are actually using your Windows setup with the instructions sitting on top. The Professor provides an audio

lesson, followed up with a practice session and then a short quiz for each topic. The CD will build anyone's confidence in using Windows. Professor C.D. Smart, \$59, is distributed by Impact Computers & Electronics, (02) 831 1192; fax (02) 622 8458.

Australian Reptiles: Know somebody interested in the great outdoors? Or, maybe you'd like to encourage someone to take an interest in outdoors. Australia's Reptiles Volume 1 is based on the Cornstalk edition of *Australia's Reptiles* by Stephen Wilson and David Knowles. The material is presented as a book with chapters, a glossary and colourful numerical diagrams. It also has sound, a trivia



PC Bible Atlas

quiz, and a few movies of the reptile parks around Australia. You can check out the life cycle of the snake, how to treat a snake bite and even prehistoric reptiles. Reptiles, \$99, is produced by Natural Learning which also produces a number of other interesting, educational titles including Birds of Australia — (02) 894 0248, fax (02) 894 0253, for more information.

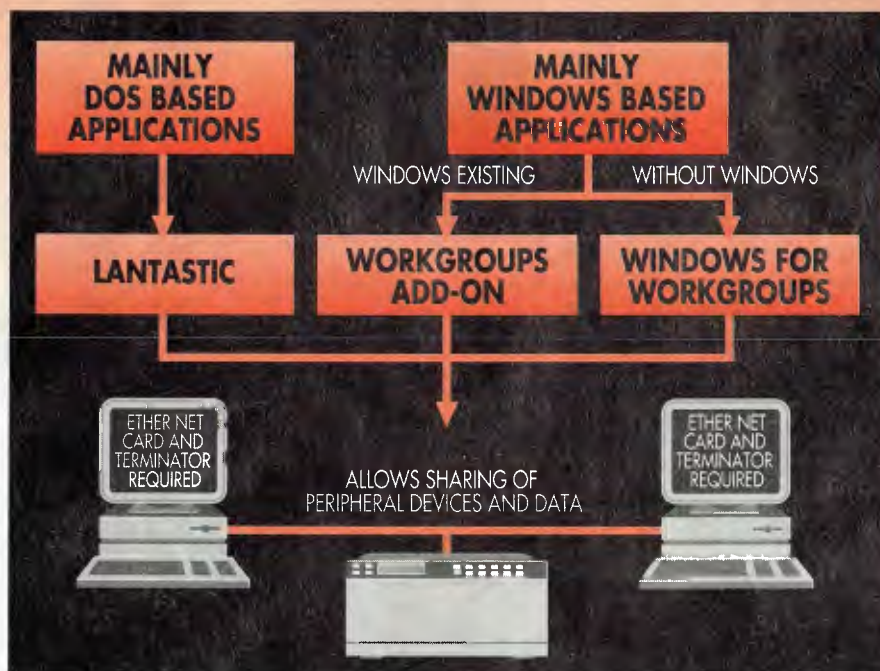
Personal Maths Tutor: If you have a



Professor C.D. Smart

CHOOSING YOUR NETWORK

With a Little Assistance from Software Express



Choosing your network:

The two main small network products are Microsoft Windows for Workgroups and Lantastic AI (adaptor independent). The choice is yours, but, WWG is a heavier user of hardware than Lantastic. You probably need 8 Mb of RAM on each machine for smooth functioning of the Microsoft Product. If you will be making substantial use of DOS products and lower end machines then choose Lantastic. If your applications are mostly Windows and you have well optioned hardware then choose Windows for Workgroups.

Network requirements:

The network connects via a coaxial cable which attaches to your computer via an ethernet card. This gives a high speed connection (10 Megabits per second). To avoid compatibility problems both now and in the future we recommend you use a recognised card such as the SMC Ultra elite of the Intel Etherexpress. These cards have the added advantage of providing high throughput with special data handling hardware and included

software drivers and software to make installation simple, both now and for any future network requirements you may have, such as upgrading to a different network operating system.

To set up your basic network you will need one card for each machine, software for each machine, cabling (available in various lengths) and terminators for the end of each branch (two).

Windows for Workgroups comes in three configurations. If you already have Windows on your machine you can buy the Add-On which gives a substantial saving over the full product. The third package is used if you wish to add a DOS only machine to the network.

Lantastic comes in one configuration only for ethernet.

Network capabilities:

Both networks let you set up peer to peer networking with shared hard drives or directories on hard drives or designate a server as a common file store. You can set security so that only those drives and directories you want to share can be accessed from elsewhere. With Lantastic

this can be set down to file level, designating particular files that can be shared. Printers can be shared across the network. Lantastic allows file printing to commence as soon as there is enough data in the spool. For messages between users you can send E-Mail. This can be a great benefit for leaving phone messages, sending memos etc. These messages are automatically stamped with the time date and sender and can be printed out for hard copy. You can purchase additional software for both networks to set up more elaborate mail systems for outside access and gateways to other branches and mail systems. However this can become quite expensive.

Prices:

Windows for Workgroups Complete Windows and networking capability.	\$189
Windows Workgroups Add On If you already have Windows	\$99
Windows Workgroups DOS Use for a DOS only machine	\$75
Lantastic AI V6.0 Adaptor independent use with any standard ethernet card.	\$145
SMC Ultra 16 Ethernet Card Fast data throughput with Simultasking.	\$225
Intel Etherexpress	\$210
Novell NE2000 Industry standard network card	\$175
5m Moulded Connector Cable	\$18
10m Moulded Connector Cable	\$35
20m Moulded Connector Cable	\$45
Terminators Two required per network	\$6

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Ground Floor, 97 Pirie St, Adelaide 5000
Phone (08) 223 4470. Fax (08) 223 4462



**Australia's
Reptiles**

child in high school who has been having trouble with maths, Memory Banks has a new Personal Maths Tutor for year 9 and 10 students — and January and February is a good time to catch up. Personal Tutor identifies areas the student is having problems with and concentrates on them with a level of patience that a human tutor often lacks. This is not a maths course — it assumes a basic understanding of the concepts — but supplementary aid to

what has already been covered in the classroom. Each topic is broken into easily digestible lessons and is reinforced with questions and 'further problems'. Solutions are shown step by step. This complete tutoring system (*you* needn't know anything about maths yourself) is broken into units: Consumer Arithmetic, General Algebra, Graphs and Gradient, Trigonometry, Products and Factors, and Indices and Surds, each of which has up to nine separate lessons.

Personal Maths Tutor, \$275, as well as other 'serious' educational products are distributed by Memory Banks, (03) 770 1615, fax (03) 770 1402.

If you can't find anything suitable amongst those notions, most of these companies have extensive catalogs with products that will suit almost every age group and interest.

If you know someone with a technical bent, a good source of ideas can be had from ads in this issue for Rod Irving Electronics — what about a naked mouse? Or Microgram — check out page 95. Or personalised mouse mats: these can be had for as little as \$5 each, silk screened with your own message. Or, a photo of yourself with a humorous message that can be loaded into a screen saver. The list is endless once you start thinking computers!

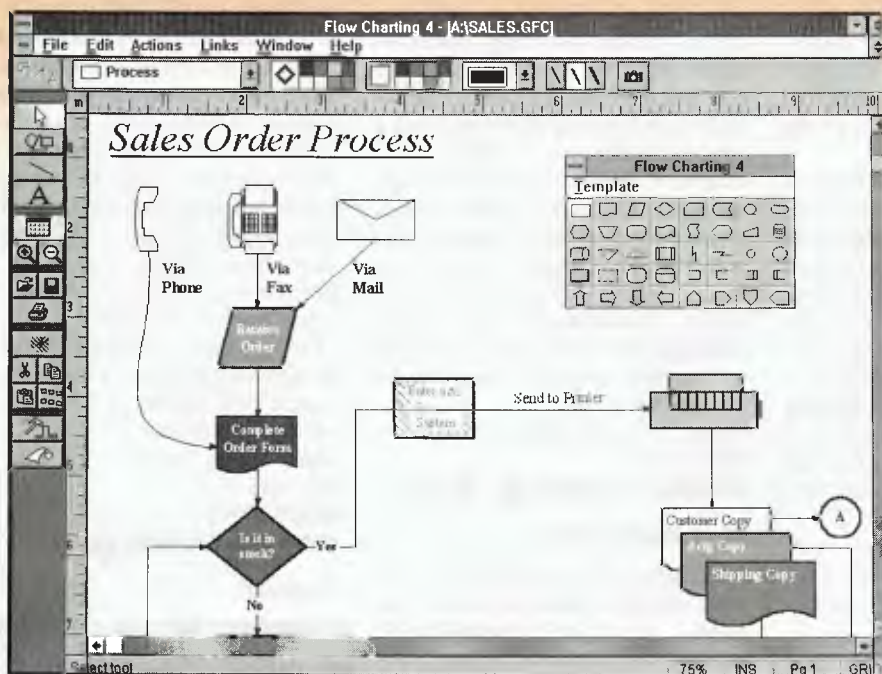


Personal Maths Tutor



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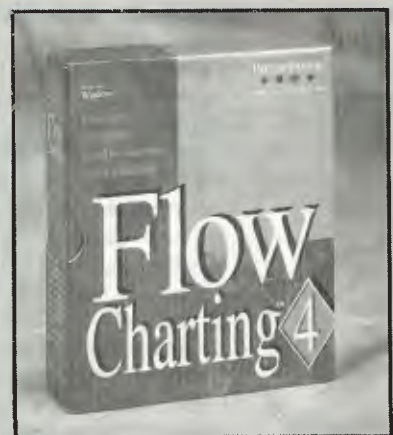
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Classifications

Where a game now comes to us with a classification sticker attached we'll show it along with the review

With
Eric Holroyd

Many of the games reviewed in this column were released prior to the computer and video game classification ruling from the government's Office of Film and Literature. Where a game now comes to us with a classification sticker attached we'll show it along with the review. Also, when buying software you can now check the game's rating for yourself as it's right there on the packaging.

Our 'Game of the Month' is *Doom II* which bears the US classification of 'Mature. Animated Violence. Animated Blood and Gore.' plus the Australian rating of 'MA 15+'. High level animated violence.' which I take to mean 'recommended for Mature Audiences over 15 years old'. *Doom II* is violent, sure, but it's a lot of fun to play in the same way that the *Road Runner* and *Coyote* were fun to watch. I never took that too seriously either and certainly didn't drop boulders onto people's heads from 200-foot cliffs.

Note that all the games below — with the exception of *Doom II* — were released prior to the classification ruling.

Delta-V



Type: SIM/ARC/GA
Sound: GUS/ROL/SB
Disk Space: 17MB

I enjoyed this fast pace flight and blast 'em adventure with its good Virtual Reality feel. Claimed to 'run faster than the human eye can follow', *Delta-V* certainly ran fast and smooth on my 486. Screen updates were really fast and as I flew my craft around the ever-changing and swiftly moving playfield, I felt it had all

the elements of those coin-op simulators in the arcades. Atmospheric SFX and music heightened the effect also.

Set a century hence, the galaxy is controlled by GlobalNet holding all corporate data. You're a Net Runner attempting numerous missions — called 'Traces' — against Black Sun interlopers. Easier to play than to explain, the fast moving action pits you against all comers, with a great player interface and helpful status screens. A desktop reference card augments the well produced manual which details the various Traces, weaponry and available craft. I played with keyboard control, there's also a joystick option, whilst Thrustmaster and Gravis Gamepad users have the option to use buttons three and four for more active weapons. Great fun!

From: Directsoft, (02) 489 7853

RRP: \$99.95

OVERALL RATING: 9.1/10

Christmas ideas

Looking back over the year, we've featured some great game software in these pages. In deciding to 'have another look' at some which became favourites, it was difficult to know which ones to leave out. Here's my pick of the final seven which, I noticed after compiling the list, range right across the game playing spectrum. If you're looking for ideas for Christmas, there's sure to be something here for every games player.

Blake Stone: Aliens of Gold

Type: ARC/GA
Sound: AL/SB
Disk Space: 7.9MB



My 'Game of the Month' in May, *Blake Stone* is the arcade shoot-up I've gone back to time and again when reviewing sound cards and joysticks, invariably being sidetracked into an hour or so's gameplay due to its 'hookability'.

It's a thoroughly enjoyable 6-episode fast action arcade game which bears some resemblance to *Wolfenstein*, being set in endless mazes of corridors and so on, but has enough individuality and variety to maintain interest. As *Blake Stone* you're battling the evil Dr Goldfire and his genetically created army of fierce monsters in a series of multi-level searches of his Star Institute. You have a great array of weapons for blasting the guards and monsters. The GFX feature nicely textured walls and floors; SFX and character speech are great; and there's a useful 'automapping' feature to show your whereabouts during the very fast gameplay. Online Help, a 'hint sheet' and a cheat mode are included.

I've previously played *Blake Stone* from the keyboard, but liked it very much with Logic 3's micro-switched LogiPad when testing that out recently.

From: Vision Shareware, 1 800 807 486

RRP: \$69.95

OVERALL RATING: 9.4/10

Detroit



Type: SIM
Sound: AL(G)/SB(PRO)/ROL
Disk Space: 6MB

When having another look at this nice Impressions game reviewed back in August I got a lot more out of it. I played it with a friend — a competitive sort of guy who works in management — and we had a great time taking turns at running our own car manufacturing plants.

The time frame is that of the years 1908 to 2008 and you're just starting off in the car making industry with very little

money and a prototype car. You need to sell that, then make more and eventually start your own production line. If successful, due to clever marketing ploys and shrewd business decisions, you'll have money to spare for research and development. Nine vehicle types — from luxury cars to sports models — can be built and there's a company test track where you can try them out.

Detroit is an imaginative game with great depth. Graphics are good, gameplay smooth, and a print function gives you hard copy of your business reports.

RRP: \$99.95

From: Directsoft, (02) 489 7853

OVERALL RATING: **9.2/10**

Hellcab



Type: GA/SIM

Sound: WSC

Disk Space: 3MB

In our July issue I made the acquaintance of Raoul, the friendly taxi driver who picks you up at the airport, takes you sightseeing then turns nasty when you can't pay the fare. It seems he's sold his soul to the Devil and must recruit more souls (like yours!) to buy it back. He tours you through the hottest hellholes in

history (with stunning GFX of Roman days, World War II, the Jurassic era and more) as he tries to win your soul. You can come out intact by using your credit card to buy time, using money from an automatic teller, also earning brownie points in various ways, too.

Hellcab has the most incredible graphics, with every scene being beautifully drawn and animated. When the characters speak to each other it's almost as good as being at the movies. The interactive story is based on the idea that, whilst everyone has a horror cab ride story to tell, this is the one that'll beat them all. This is a great game, and like no other I've ever seen.

From: Dataflow, (02) 310 2020

RRP: \$139.95

OVERALL RATING: **9.2/10**

The Even More Incredible Machine

Type: PUZ

Sound: AL/MV/SB/ROL

Disk Space: 1.4MB

The Even More Incredible Machine is an absorbing CD-ROM puzzle game which I reviewed in August, and which I'm still playing quite a lot. Reminding me very much of those Heath Robinson contraptions in *Punch* magazine, the various machines you build to solve each level are really weird and wonderful. The first few screens of an increasingly difficult series of puzzles give you the hang of building a working machine from available components like bellows, seesaws, mouse driven pulleys, connecting belts, dynamite and plunger, pistols and so on, and

KEY TO ABBREVIATIONS

ADD — Dungeons & Dragons	INT — Internal Sounds
AL(G) — Ad Lib (Gold)	MV — Media Vision Card
ARC — Arcade Action	PUZ — Puzzle Game
BRD — Board Game	ROL — Roland Sound
COMP — Compatibles	RP — Role Playing
DRV — Driving Game	SB(PRO) — Sound Blaster (Pro)
EDUC — Educational	SIM — Simulation
FAN — Fantasy	SPT — Sports Game
GA — Graphic Adventure	SS — Strategic Studies
GM — General MIDI	WAR — Military Strategy
GUS — Gravis MAX soundcard	WSC — Windows Sound Cards

clicking the 'go' button puts it all into action.

Logic and an eye for things mechanical are needed to get you through the levels, with puzzles 1 to 88 available for immediate play. Puzzles 89 to 160 can only be accessed via passwords earned by working through the first lot. The handy little



manual steps you through the first puzzle of getting a basketball through a hoop (make the mouse wheel drive a conveyor to drop a bowling ball and so on), also explaining the myriad other components. I



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DOOM II: HELL ON EARTH



The smooth scrolling GFX of underground passageways and rooms in **Doom II** are impressive

Type: ARC
Classification: MA15+
Sound: AL/GUS/ROL/SB
Disk Space: 15.8MB
We're back in the netherworld, but since we were there in *Doom I* the number of monsters and demons has exploded to plague proportions. Not only that, they're meaner than ever so you have your work cut out to conquer them and save the world. Luckily, you've got much more varied and

powerful weapons than before and although you're only one against many you're in with a chance.

The smooth scrolling GFX of underground passageways and rooms with richly textured walls, floors and ceilings are impressive. I also liked the way I could use the Roland card for the excellent music and Sound Blaster for the awesome SFX and got yelled at numerous times to 'turn it down!'. Gameplay is absorbing and very fast, and I quickly learned to watch the 'health' display (a human face that saddens and bloodies) and conserve ammunition by not blasting needlessly. The Tab key brings up a useful 'where you are' map and greatly aids gameplay. After battling in underground mazes the action comes aloft and there are even more amazing GFX in some of those scenes. My review copy was on CD-ROM, but floppy's available, too. Either way I feel that *Doom II* was worth the wait.

From: Sega OziSoft, (02) 317 0000
RRP: \$99.95

OVERALL RATING: 9.4/10

found the animated title screen a great help in learning how to operate things in this fun game for all the family.

From: Sega OziSoft, (02) 317 0000

RRP: \$69.95

OVERALL RATING: 9.4/10

Jazz Jackrabbit



Type: ARC/GA
Sound: GUS/MV/SB(PRO)
Disk Space: 12.6MB

My 'Game of the Month' for November, *Jazz Jackrabbit* proved once again what a sucker I am for a good, fast action arcade game. From USA's Epic Games, this cartoon style game with its snappy SFX and lovable central character had me saying many times, 'Just one more time, and then I'll go to bed...'

Featuring an updated 'Tortoise and Hare' plot of six episodes, the game starts with the beautiful rabbit princess, Eva,

being kidnapped by the evil Devan Shell (who's also planning World Turtle Domination). Jazz Jackrabbit must rescue Eva and crush Shell by stealing his treasures and wiping out his shelled soldiers. Gaining energy from carrots picked up along the way, he encounters secret stages, time extenders and other goodies during some fast and furious gameplay whilst using a multitude of weapons and powerups.

From: Manacomm, (07) 368 2366
RRP: \$59.95

OVERALL RATING: 9.3/10

Microsoft Golf



Type: SPT/SIM
Sound: WSC
Disk Space: 3.9MB

Back in June I said that *Microsoft Golf* was 'simply the best' computer golf game I'd ever played, rating it as superb. A joy

to play, it's well thought out and easy to control, with a good feel of actually being out there on the golf course. Nice stereo sound effects of birds twittering in the trees and frogs croaking in the grass add to the atmosphere.

Tips from the pro helped me understand what I was doing wrong and the easy to follow demo showed how to use the very clever mouse controlled club swing. These let you check out the full terrain of every hole and it's just like flying over the course. For accurate putting you can opt to have an overlaid but unobtrusive green grid which really helps a lot. This is a 'must have' for golf fans.

From: Microsoft, (02) 870 2200
RRP: \$95

OVERALL RATING: 9.3/10

Tie Fighter: Star Wars



Type: GA/SIM
Sound: AL(G)/AWE32/GM/GUS/INT/MV/ROL/SB(PRO)/WSC
Disk Space: 14MB

A space shoot'em up adventure in the Star Wars tradition, this Lucas Arts production is a game with lots of depth and lasting interest. The screen graphics are well drawn and there's a good deal of atmospheric 'feel' about the whole affair. Control by mouse or joystick is responsive and a further control option allows well equipped computer flight fans to use the Thrustmaster system or Flight Stick Pro, with many extra control commands available from the keyboard. These are detailed on a useful desktop help card.

The story-line is of a decade long conflict with you as a Naval Academy recruit flying on the Imperial side to crush the Rebels with some amazing weaponry. There are many different craft to fly and some helpful training missions familiarise you with them. The game's format is a little similar to *X-Wing* and those elements of 'The Empire strikes back' make it a gripping game requiring concentration and quick responses. Highly recommended.

From: Metro, (03) 329 2999
RRP: \$89.95

OVERALL RATING: 9.3/10

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DOS utilities II

DOSNIX and GET are useful batch file utilities, while Screen Thief is just fun!

With
John Hepworth

DOS is still alive and well, despite the recent release of OS/2 Warp and the promise of Windows 95 in the next few months. As a result, while many shareware authors are writing for OS/2 or Windows as they gear up for Windows 95, there are still many writing a variety of good DOS shareware programs.

DOS shareware these days is most likely to be utilities. This month there are three such packages to talk about. DOSNIX is a collection of utilities that can be used from the DOS command line or from inside a batch file. The various programs in this set mimic common Unix commands, and offer some useful addi-

tions to the set. It's pretty hard to work out the various functions of these 27 from the names of these programs, as they use the rather obscure Unix naming style. Fortunately there is a very good documentation file on disk, with very good details on each and every one of the commands. Even more fortunately, each entry is tagged so that when using VF (a file listing program that is included in the set) you can jump straight to the entry for a particular command.

Many DOSNIX programs use DOS's Standard Input, Standard Output and Redirection. As a very quick explanation, DOS normally expects information to come from the keyboard and to be sent to the screen. DOS knows the keyboard as standard input, and the screen as standard output. Using the < character on a command line can tell a program to take its input from a file rather than the keyboard. Using > or >> can tell a program to send its output to a file. In addition the | (pipe) character tells one program to send its output to another program that will, in turn, send its output to standard output.

All of these techniques fall under the heading of redirection, a subject worth looking up in your DOS manual. Redirection is not complicated, but there isn't enough space to adequately cover it here.

Some programs fall into a category called filters, which take input from standard input, massage it, and send it to standard output. These can read from a file, modify the data as it goes past, and then send it to another file. The DOS *find*, *more* and *sort* programs are all filters.

Back to the DOSNIX commands. I won't cover all 27 of them, but these examples give a good idea of the range of functions available.

APP is a filter that takes standard input, and adds it to the end of ('appends') a file.

By use of the < redirection operator it can read one file and then append it to a second file. CAT, like the DOS *type* command, reads a text file and sends it to standard output, which can also be redirected to send the output to a file. But CAT adds the feature that it can read several files in turn, combine them into one longer file, and send to standard output or a file. CLR clears the screen, like DOS' *cls*, but also is supposed to set the foreground and background colours. This was the only program in the set that did not work properly on the review machine, as it hid any text if the foreground colour was not yellow.

CP, like *copy* and *xcopy* in DOS, is used to copy files to new file names or directories. It has additional features, such as being able to read one file and write multiple copies with one command line. CPDIR copies a complete directory to either a new or existing directory. DB is a 'delete but' command. It deletes all files in a directory except the files given as an argument. Wildcards can be used in arguments but path names are not supported. DU reports the amount of disk space used, in 1KB blocks, 2KB blocks, or 4KB blocks, and can show a number of other useful details of disk usage.

EDC is called Easy Directory Change. It allows you to change directories by entering only the directory name rather than the whole path name. FFIND searches for files that match a pattern. It can search one drive or multiple drives, and can start at the root directory of a drive or in a specified directory. It then looks through all lower level directories and reports where files are found which have names matching the pattern. The GET in DOSNIX finds all file names containing a specified string.

LS lists contents of a directory, sorted across the screen in five columns. The arguments can be either files or directories. If wildcards are used, all matching files will be listed. Multiple arguments are accepted and more than one directory can be displayed. MV moves files to a new file or directory. MVDIR is similar, but moves directories and all subdirectories to a new location.

RM removes files. It is the Unix equivalent of the DOS *del* command. If a pro-

```
head
NAME:
HEAD    Display the first few lines of a file

SYNTAX:
head [-nnvv] [file1 file2 ..fileN] Displays first nnn lines of
file1 through fileN

OPTIONS:
-nnn    Display the first nnn lines
-v      Verbose. Print name of each file.
-?      Display help screen

<<DOSNIX.DOC>>  <SPACE> TO CONTINUE  <F> FOR HELP  <Q> TO QUIT  1292
```

DOSNIX's VF is an ASCII file viewer that can jump straight to tags in the text

tions to the internal and external commands that come with DOS. GET is a comprehensive batch file utility. It takes user input of one sort or another, or reads various system settings. It then saves the result in environment variables and errorlevels, which be used in later lines in the batch file.

DOSNIX

While in many ways DOS was loosely patterned on Unix, there are many very useful Unix features and commands that are missing from DOS, or where the DOS equivalent has significantly less functionality. DOSNIX adds some Unix-style commands and enhancements to your system with no less than 27 programs in

tected file is specified, RM will prompt you before removing it. RM is a great tool for erasing floppy disks but it is also capable of wiping out your hard disk. Use it with care. SGREP is particularly useful. It searches inside one or more files for a specified text string. It is similar to the Unix FGREP command, and serves a similar purpose to the DOS *find* command. SGREP will accept wildcards and multiple arguments as file names.

SPLIT divides a text file into smaller files. These default to 1000 lines each, but if a smaller or larger output file size is desired, the number of lines can be specified as an option. Output files are named by adding extensions of *.xaa, *.xab and so on. TEE copies standard input to standard output, both of which would normally be redirected to read from one file and write to another. As the data is going through TEE, a second copy is siphoned off and sent to the screen in a way that can't be redirected. TEE is mainly used to give you a screen display while another filter is processing data.

TOUCH is particularly useful. It can modify the creation date and time of one or more files. Often used by programmers to set the date and time of various source code modules, TOUCH can be used for many other purposes. It defaults to using the current DOS date and time, but the user can also specify what date and time are to be used. WC counts lines, words and characters in a file. All three are normally displayed, but if desired only one of the three can be displayed.

DOSNIX is a great utilities collection. Some of the programs offer little more than their DOS equivalents, while others are extremely useful, solving problems that would otherwise be annoying or difficult to overcome. It is a product of Gerald Vrooman of the US. The fee for registration of DOSNIX is US\$35.

GET

There's only space for a very brief mention of GET. This is not the GET that is part of DOSNIX, but a completely different DOS utility. It reads various user inputs and system characteristics and saves the result as environment variables or errorlevels, both useful ways to get information into a batch file.

GET can read a character or string entered by the user, create displays of moving text, and echo to the screen. It can do some very basic additions using values saved in the environment. This, amongst other things, lets you set up loops in a batch file which repeat a desired number

of times. GET can read and set the video mode. A very useful ability is that it can read date and time from DOS and save it in the environment and errorlevel.

GET can set NumLock, ScrollLock and CapsLock. It can read free disk space, and disk size. It can read a disk volume label, read a file size, check the name of the current directory, and identify the current drive. Other features are its ability to check that a printer is connected and online. It can determine the free memory, and the amount of environment space free. Other features include reading the DOS version, if a math coprocessor is available, the type of CPU, and more.

Many other batch file programs can read one or many of these details. What is particularly nice is that GET can save the results to the environment as a string, or to the errorlevel as a value from 0 to 255. Either way, later lines in a batch file can respond to the values in the environment, or the errorlevel left behind by the previous line, and act on it.

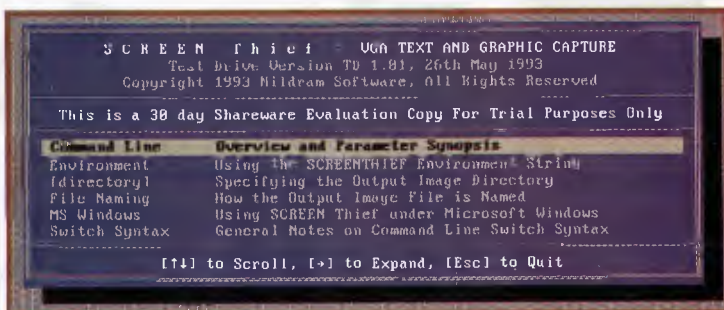
GET is a product of Bob Stephan of Pebble Beach, CA. Registration is US\$15.

Screen Thief

Something completely different is Screen Thief. This is a TSR that sits in memory under your other programs. Then, when triggered by pressing Ctrl-Alt-T, it reads a screen and saves it as a *.gif, *.pcx, *.bmp or *.tif image.

There have been many screen capture programs in the past. What, therefore, are Screen Thief's advantages? First Screen Thief can capture both text screens and graphics. It reads VGA and SVGA screens. It takes very little memory. The directory in which pictures are saved can be specified. It automatically names files based on the name of the program being captured, with a running number as additional captures are made. Finally, it hooks into the system at quite a low level, making it possible to capture screens from programs that can prevent many screen capture programs from working.

Screen Thief was used to capture the screen from DOSNIX used in this column. To illustrate its ability to capture graphics screens, there's also a screen cap-



tured from the game Seventh Guest. Screen Thief works very well, and seems to be compatible with a great range of software.

Screen Thief is a product of Adrian Mardlin of the UK. Registered copies are available from Budgetware, (02) 519 4233, for \$65.

Get yours ...

If you enjoy using your computer you will, sooner or later, find yourself writing batch files. Not much later you will become frustrated with the DOS batch commands, and with the other DOS commands. Then it's time to look for programs and tools to enhance the way DOS works. DOSNIX and GET are great additions to the toolkit of anyone writing batch files, and indeed anyone who seriously uses DOS.

Likewise, Screen Thief is invaluable for the admittedly smaller group who need to capture pictures of text or graphics screens for later reuse.

Look for evaluation copies on a bulletin board near you. DOSNIX version 2.2 is in DSX22C, GET is in GET26, while Screen Thief is in SCR_THIEF. A disk with evaluation copies of all three is available for \$10 (cheque, Mastercard, Visa or Bankcard) from the Sydney PC User Group. Write to Library Orders, Sydney PC Users Group, *Your Computer* December Disk Offer, PO Box 7039, McMahon's Point NSW 2060. Make all payments in favour of the Group. ■



Screen Thief offers clear and concise help. It was used to capture the 7th Guest screen below



The CorelDraw 5.0 experience

Roy Hill found the latest Corel suite is a full-featured graphics powerhouse. With Ventura, it's become a complete four-colour publishing system.

CorelDraw 5 has arrived and I feel sorry for those who need to feed its 16 floppy disks into the computer. Fortunately, it also comes on two CD-ROMs, and I was able to use that for the installation. I was concerned at the packaging used for the CDs, though, — they were slipped into a disc sleeve with no other protection; I would have preferred something more robust. There is a third CD with samples of images, as well as Corel's Screen Saver program.

There are some bugs in the new version, particularly noticeable when opening drawings created under previous versions of CorelDraw. Corel admits there are problems, and the company is ready to ship a maintenance release with the new version of Ventura, now called Corel Ventura. Those buying version 5 before then will receive a coupon offering the maintenance release and Ventura.

The most bothersome bug is in opening

files created with earlier versions in CorelDraw 5. Users are reporting that whole blocks of text are being lost when opened in version 5 and some fonts from version 3 do not convert, convert to something bearing no resemblance to the original, or disappear and leave blank space where the text was.

Participants in the Corel forum on CompuServe have also been complaining of various bugs, including the inability to open files in CorelDraw 5 that were created in release 4. Graphics-only files appear to convert without any problems, however. Judging by past experience, it usually takes Corel two or three releases to get the bugs out.

Corel 5 is slightly different in installation to most other CD-based packages. These require the user to insert the first diskette in the drive (so licence information can be written to it) and the remainder of the installation can be carried out from the CD-ROM. Corel 5 allows the

user to perform a complete installation of the product from the CD.

I chose to perform a complete installation, even going so far as to install the Quick Tour guided tour of Corel 5, which uses Microsoft Video for Windows. Video for Windows is loaded if it isn't already on the system. The complete installation clobbered 70.5MB on my hard disk. There are hundreds more megabytes of additional clip art and TrueType fonts — 825 of them — included on the CD.

The installation was completely trouble free and immediately after it was completed I ran the Quick Tour. The video segments don't do the program justice — interviews with talking heads, muddy colours and dis-continuity of the video left a lot to be desired. Unless you have a dedicated video board installed, it isn't worth the trouble. About the only thing I picked up from the video is that the technology has a long way to go.

Rather than the video, I wish the Corel people had spent their energies on producing an automated upgrade process, rather than the Quick Tour — the upgrade process requires some fairly heavy editing of the system.ini, win.ini and Regedit files to remove traces of previous versions. This needs to be done prior to installation of the new version — something not normally tackled by the average application user. The 30-page *Installation Guide* does cover it fairly well, but I wouldn't tackle it lightly.

CorelChart: is used to produce charts and graphs for inclusion in either CorelDraw or for use in CorelShow — see Figure 3. I created the Widget chart in about two minutes. Simply fire up the program and select the style of chart that

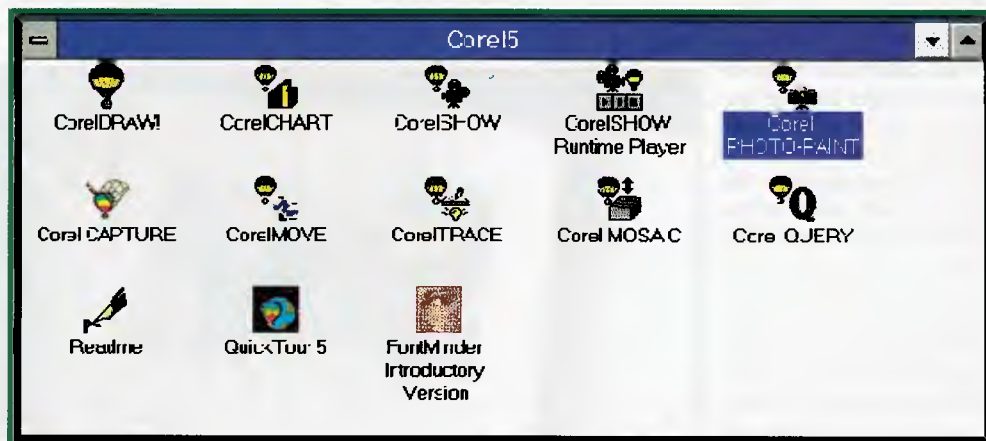


Figure 1. CorelDraw 5 offers an even more comprehensive suite than earlier versions — 70MBs worth, in fact. However, unless you have a video card in your system, the Quick Tour isn't worth the disk space it takes

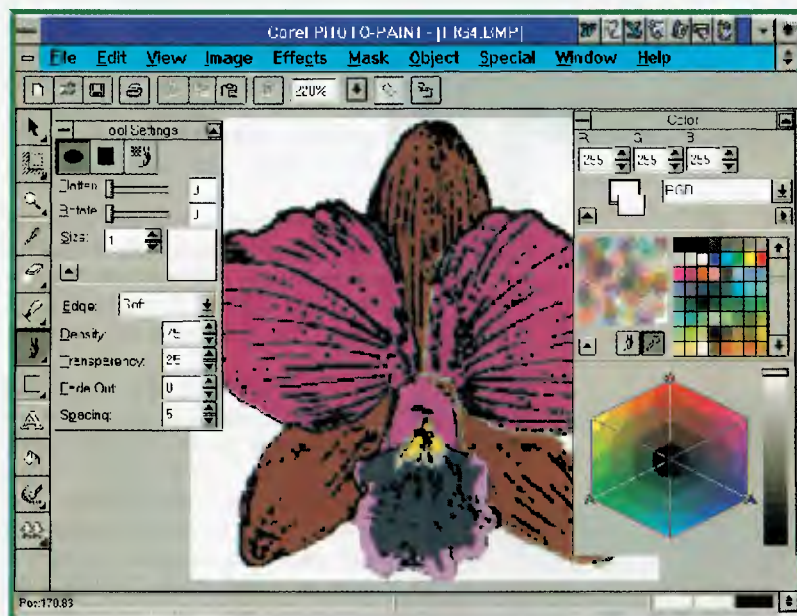


Figure 2. CorelPhotoPaint is a powerful image editor. The orchid has had Jagged Despeckling applied to sharpen the image. Note the 'roll-ups' — there are ten of these, giving quick access to most editing features

you want to create. Then invoke the Data Manager from the View Menu and change the values and headings to reflect your own data.

CorelShow: is a presentation program to create on-screen presentations, or produce overhead transparencies, audience handouts, speakers notes and the like. I discussed it in 'Persuasive Presentations' which was in the November issue.

CorelPhotoPaint: 'combines impressive painting tools with powerful mask-

ing, object handling, photo-retouching and colour correction capabilities ...' according to Corel. This new version has numerous 'enhancements' and is now very similar to the market-leading Picture Publisher from MicroGrafx. I used it to retouch and then save all the screen images, as described below. CorelPhotoPaint is a high-end package, which will find a very good home in the graphic pre-press area. I was impressed that such a full-featured package is in-

cluded with CorelDraw since similar stand-alone packages cost \$500 or more. Figure 2 shows an example of my 'artistic' efforts (I wish there was a package that would change me from a bumbler into a competent artist). I am definitely going to play with PhotoPaint a bit more. I particularly like the ease with which effects can be applied to an image.

CorelCapture: is a handy little program that one can use with virtually any application to capture Windows screens, or part thereof. Once Capture is fired up, you can copy a picture of the desktop, the currently active window, the client area of the active window or a defined rectangular area of the screen, to the Windows Clipboard. I used CorelCapture to produce all of the screen shots in this article and then pasted them into CorelPhotoPaint for touching up and then saving as Windows *.bmp files. There are numerous other saving options, but *.bmp files seem to be the ones most in favour since they are truly independent of graphics cards, unlike many of the other optional formats.

CorelMove: is used to produce simple animations from a series of stills. It operates in the same way in which cartoons are built — a moving image is built from a sequence of still pictures in which the motion is created by making minor variations in position of the image from one frame to the next and then showing them so quickly that the images blur into apparent motion. Figure 4 shows an example of a canned CorelMove demo. Sounds can be added using standard *.wav files. Move is a fairly basic animation program, but it is

COREL CHART

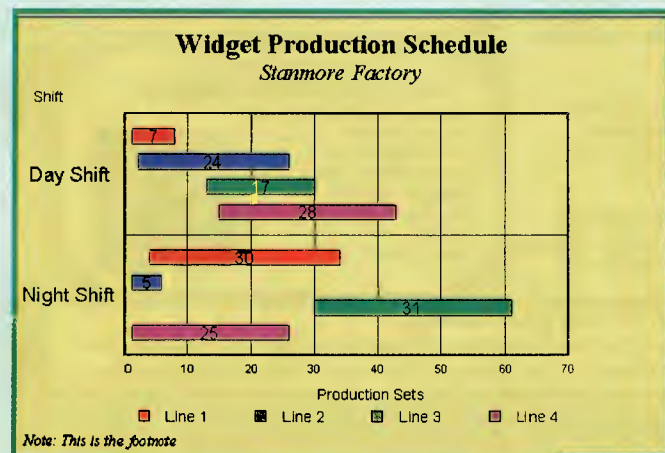
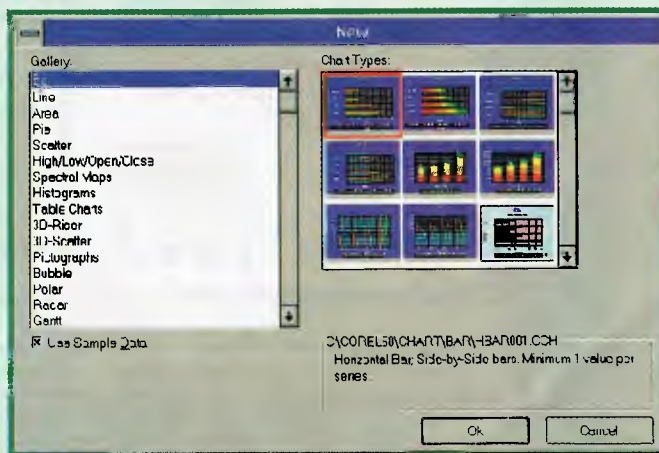


Figure 3. Corel Chart has 16 different chart types and a straightforward approach to customising them with your own data and headings



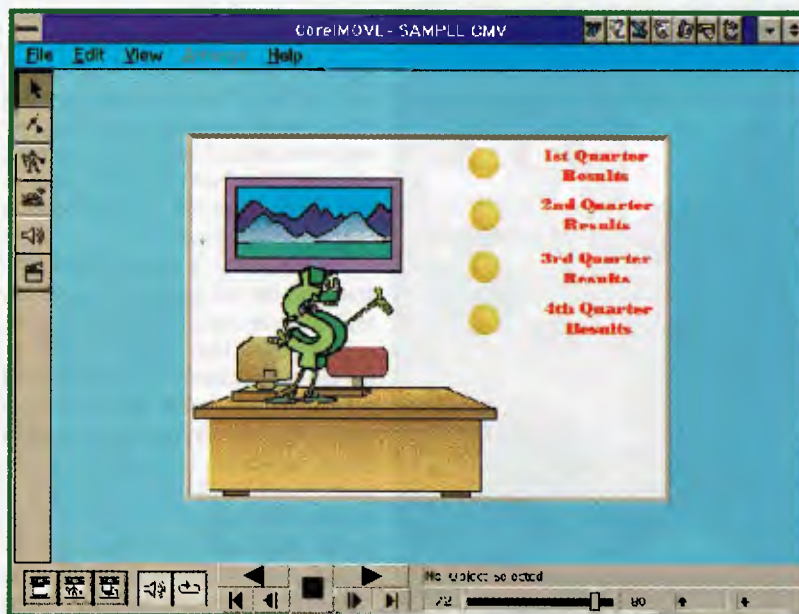


Figure 4. CorelMove is a basic animation package — here the 'dollar man' waves his arm to introduce each new point in the presentation

useful for adding interest to a presentation.

CorelTrace: is used to convert bitmap

images into an editable CorelDraw format. Although a bitmap can be pasted into CorelDraw, it still remains as a bitmap in-

side CorelDraw; consequently manipulations are limited. 'Tracing' the bitmap results in a vector image. A variety of effects can be applied during the conversion and text bitmaps can be converted back to text using the built-in OCR.

CorelMosaic: is Corel's compression/archiving system for images. Most of the other programs in the suite use Mosaic as an image manager. A variety of image types — not just Corel's own — are supported.

CorelQuery: is used to collect data from a wide variety of source files and then combine the data into tabular form that can be sorted, queried (SQL), searched, linked to other applications or printed. I didn't try out this program, as I gave away using databases after my first experience with dBase II under CP/M. The process of building a CorelQuery database is well explained in the manual and appears quite straightforward.

... and CorelDraw

CorelDraw is, of course, the flagship of the suite, and certainly the one that most people will buy the package for. In my

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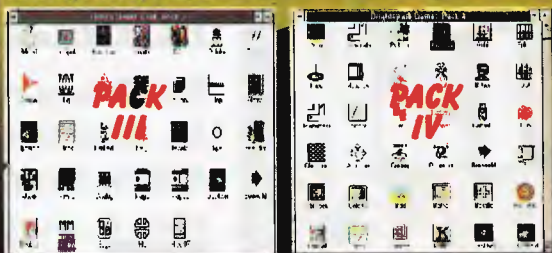
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regular day job, CorelDraw is a part of life in teaching Graphic Arts and Desktop Publishing students to use a high-end drawing package. As this is part of my area of responsibility, I get to see some of the productions from these talented students — examples of their work are shown in Figure 6.

All of the Corel features that make it *the* outstanding general purpose graphics package on the PC are in version 5, as well as a number of new ones — see Figure 5. Notice the 'roll-ups' shown: these are some of the new effects. Mosaic is there in case I need to overlay another file, or add the current one to a library.

CorelDraw uses Bezier curves to create its lines and objects (a means of describing the lines and objects in mathematical terms) and thus any single line, or even part of a line, can be adjusted in terms of shape and position. This also applies to any text entered. The individual characters, or a complete paragraph, can be converted into Bezier curves for further manipulation. It takes a fair amount of time to learn how to use this feature, and, once mastered, places a fair degree of power in the hands of the user.

Summary

CorelDraw 5 is certainly a powerful, full-featured, high-end graphics package. In fact, unless you are seriously into quality, four-colour pre-press work, it is likely more than you'll need. It's quite easy to make use of many of the features and then discover that your laser printer (or even a low-end imagesetter) doesn't have the grunt to output them. Corel Corp.

Figure 5. CorelDraw 5 has a host of new effects, some of which are shown here. Mosaic is Corel's image database manager. It can be used to keep related images together in a database

recognises this and versions 3 and 4 are still available for those who don't need the power features in 5.

I'm impressed with the new CorelDraw and very impressed with PhotoPaint. CorelCapture worked reliably under my torture test of using it to produce its own review, as did PhotoPaint. Some of the other parts of the program could do with a little work, as mentioned above, but overall I'd rank the suite 7 out of 10. It will certainly rank much higher when Corel Ventura ships.

Corel Corp recommends a 486DX/33 with 16MB of RAM and a fairly large, fast hard disk. Given the response times I ex-

perienced with exactly that configuration, I would heartily agree. I'd also suggest a Windows accelerator/graphics card with at least 1MB of RAM — 2MB if you'll be using a lot of colour or large bitmaps.

CorelDraw 5 is \$1295 on floppies and \$995 on CD. As mentioned above versions 3 and 4 are also available: version 3 is \$289 on floppy, and \$215 on CD; version 4 is \$799 on floppy and \$599 on CD.

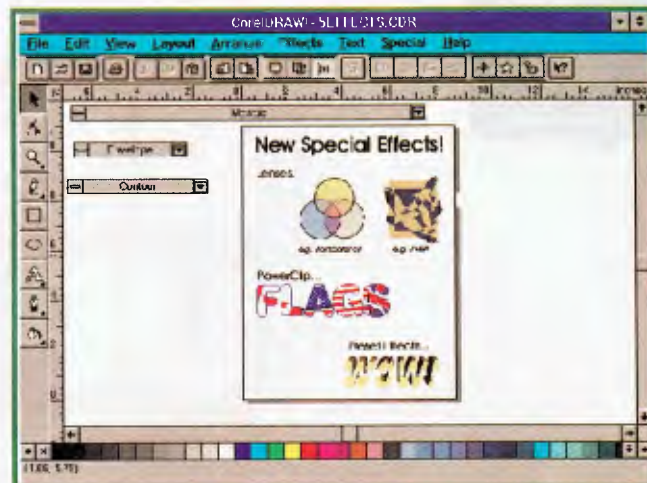


Figure 6. These images were all produced by graphics arts students at Newcastle's Hunter Institute of Technology and demonstrate the vast range of features and effects in Corel. Flying Unicorn was produced by Stacey Leman; Toyota, Richard Dryden; and DTP Extraordinaire, Dick Powell



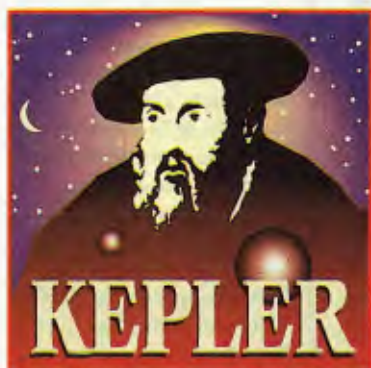


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Street prices are often lower and many dealers offer bundles of products at significant discounts

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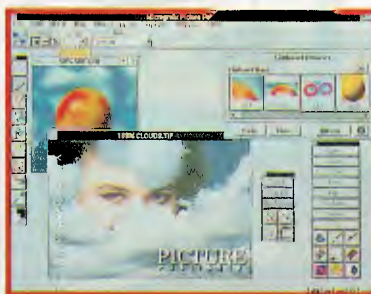


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Picture Publisher 5.0



Micrografx is shipping version 5.0 of its Picture Publisher software for Windows. The new version is based around a feature called Command List — an intelligent macro that includes features like Infinite Undo and Command Layering.

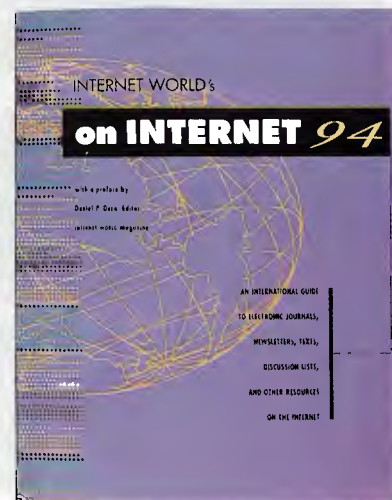
The company has integrated a drag-and-drop clipboard browser and customisable toolboxes in the new version of the program. There is also a

low resolution post processing facility that lets the user work quickly on a low resolution version of the image then apply the selected functions to the high resolution finished product.

Other features include Bubble Hints, little yellow-coloured pop-up menus that describe the icon your cursor is on; access to some functions via the right mouse button; hot keys for nearly all the menus; and large previews of effects and colour balance. Included also is online help, clipart images, and Kodak's colour management system. System requirements include Windows 3.1 or Windows for Workgroups 3.11, at least a 386-based PC with 4MB RAM (Micrografx recommends a 486 system with 8MB), a hard drive, DOS 5.0, a mouse, and a VGA or better display.

Picture Publisher 5.0, \$795 (includes both CD-ROM and floppy disks), is distributed by Micrografx, (02) 415 2642; fax (02) 415 2641.

On Internet 94



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The Public Software Library in the USA is one of the best sources for 'quality' shareware. Published each month, the CD-ROM includes new and updated programs, as well as a specific target category such as word processing, games and utilities. The disc also includes reviews of programs and tips for installation and use.

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As more and more information is posted to the Internet, keeping track of what is available becomes a real headache. A new book, *On Internet 94*, lists over 6000 special interest mailing lists, file archive addresses, newsgroups, and electronic journals covering everything from space exploration, religions, computers, AIDS research, to social issues. Advice on how to subscribe to a journal, read newsgroups, and log into an archive site is presented in a very easy to understand format.

Information such as whether a journal is moderated, who moderates it, where to send contributions, and archive sites where it can be found are all listed.

On Internet 94, \$70, is distributed by Kirby Book Company, (02) 698 2377; fax (02) 698 8748.

DataEase 5.0 for Windows

DataEase has released version 5.0 of its popular DataEase database management system (DBMS). The new version features a one keystroke migration of any DataEase 5.0 application into DataEase 5.0 for Windows. Other features include built-in graphics

support, automatic loading of dBase and Paradox tables, six-fold speed increase, and the ability to create views over tables.

DataEase 5.0, \$1275 for the full release and \$195 for an upgrade, is distributed by DataEase Australasia, (02) 955 8288; fax (02) 955 7687.

BytePro Gamma TV/Video Card

BytePro's new Gamma card looks to be the next step in video capture. Sourced from Aztech Labs, the people who make the Video Galaxy, it is both a video capture card and TV tuner in one. The images and sound from up to two external video composite sources can be connected, say from a VCR and camcorder, as well as an S-VGA source, plus a TV tuner for bringing direct television broadcast to your computer screen. All you need to do is plug in a standard TV aerial.

It also comes with a daughterboard teletext option pre-installed, plus MPEG-1 support. So you can use this to not only capture video from several



sources, watch TV on your computer monitor, but also playback MPEG titles, with full screen, full motion video.

The BytePro Gamma TV/Video Card, \$599 and \$99 for the TeleText upgrade, is distributed by BytePower, (07) 857 2388; fax (07) 857 1828.

See next February's YC issue for a more detailed review and a chance to win one of these cards for yourself — Philip Moore.

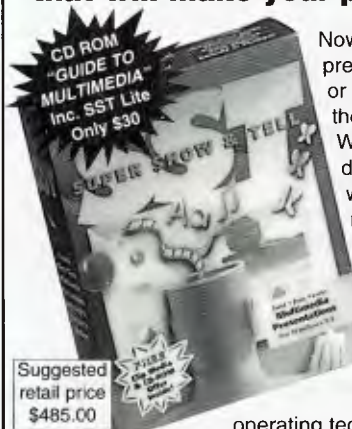
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Play the same golf courses as the professionals. With incredible scenery and realistic stroke play, this program is sure to be a big hit with the whole family.

Microsoft Scenes for Windows

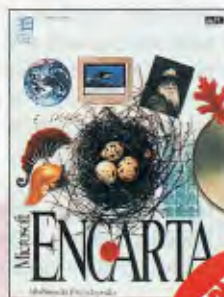
Extend the life of your monitor with one of our colourful screen savers. If you prefer that personal touch, you can display one of your own photos.

Microsoft Flight Simulator

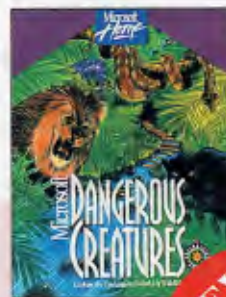
Strap yourself in and prepare to take-off and fly further than ever before. This is as real as you can get to flying without leaving the ground.

Microsoft Arcade

This is real action for all the kids. Sharpen their reflexes with this exciting games package. Which includes five classic arcade games; Missile Command, Asteroids, Tempest, Centipede and Battlezone.



NEW



NEW

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And we have the most complete programs for home and business management. Most importantly, our software is easy to use. In fact, when you learn one of our programs, you can basically use them all. Just call into your local computer store for all of your Microsoft Products.



CHILDREN'S SOFTWARE

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A writing and publishing program with all the tools and inspiration for creative kids. Make wonderful stories, newsletters, banners and much more. Watch your children develop their own creative style.

Fine Artist for Windows or Macintosh

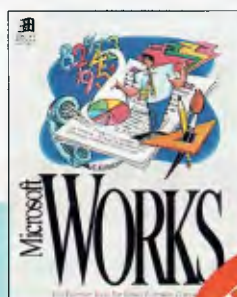
This artistic program lets your kids express their creativity and develop their talents at an early age. It will also encourage their artistic skills. The program starts where other creative software ends. Best of all, Fine Artist is very exciting and bags of fun.

Microsoft Magic School Bus

Take an excursion through the wonders of science. You'll discover an exciting and colourful new world when you take a ride on the Magic School Bus. There's always something to see and do.

Microsoft Interactive Software for Windows or Macintosh

Choose from one of our most popular and imaginative programs which are soon to be available; Haunted House or Explorapedia. Help develop your child's creative style with any or all of these fascinating programs.



HOME BUSINESS MANAGEMENT

Microsoft Works for Windows, MS-DOS and for the Macintosh

Discover a new side to your computer. The upgraded Works version is for essential daily computing. This program can use word processing, financial analysis, databases, charting and even drawing.

Microsoft Home Mouse

Easy for all the family and specially designed for any size hand. Comes with unique Home Edition of IntelliPoint software to give you a choice of on-screen pointers.

Microsoft Ergonomic Keyboard

Designed for maximum comfort and control, our ergonomic keyboard is more than a pretty shape, it's functional. It will change the way you think about typing forever.

Microsoft Money

Our money program is the fast and easy way to plan and manage your finances. If you want to access financial information, print cheques, balance your budget or prepare your tax, this program is right on the money.

Microsoft®
Making it easier

HP's new LaserJets



The new Color LaserJet and LaserJet 4V printers from Hewlett-Packard are now available. The Color LaserJet prints at 300dpi up to 10ppm with black only printing and to 2ppm for full colour graphics printing. The laser can handle up to A3 size paper, and has a 500 sheet input tray, and Adobe PostScript Level 2 and HP PCL. The Color LaserJet uses four toner colours, cyan, magenta, yellow and black for an output of 16.7 million colours.

The Color LaserJet uses HP's

ColorSmart printer driver technology, already used in the colour DeskJet series. ColorSmart technology automatically separates the image into cyan, magenta, yellow and black colours, and manual separation control can also be used. The driver automatically identifies objects on the page as text or graphics, and applies the right colour controls and dithering patterns for each object.

The new workgroup laser printers, the LaserJet 4V for DOS and Windows, and the LaserJet 4MV, for DOS, Windows, Unix, Macintosh, and network environments, feature 600 by 600dpi output, 16ppm for A4, letter and executive paper sizes and 9ppm for A3, PostScript Level 2 and HP PCL 5, and an optional 42MB internal hard disk. The LaserJet 4V is upgradable to the 4MV which includes the JetDirect card for Ethernet and LocalTalk network connections. The internal hard disk

eliminates the need to download commonly used fonts and graphics.

The LaserJet 4V comes standard with 4MB RAM (upgradable to 44MB), whilst the LaserJet 4MV comes with 12MB RAM (upgradable to 68MB).

The Color LaserJet, \$11,680 (ex tax), LaserJet 4V, \$3780 (ex tax), and LaserJet 4MV, \$5360 (ex tax), are distributed by Hewlett Packard, 131 347.

HP DeskJet 320



Hewlett Packard has released two new compact colour inkjet printers with ColorSmart technology. The two mobile printers, the DeskJet 320 for portable PCs and DeskWriter 320 for Mac PowerBooks, weigh 2kg each, have a resolution of 600- by 300dpi, and use HP's Resolution Enhancement Technology (RET). Each printer can print at more than 3ppm of black text, and a colour page in about 4 minutes. The printer supports a wide variety of media, including A4, legal, letter, transparencies, and labels. An optional cut-sheet feeder offers 60 sheets of paper or 20 sheets of transparency film.

Colour is easily added by a simple drop in colour kit. The printers use HP's ColorSmart technology that automatically makes colour choices that enhance the effect of colour text, charts, and photographs.

The two printers can be powered by either a battery or an AC adaptor. The battery permits up to 100 pages of black-and-white printing and takes approximately six hours to recharge in the printer. A worldwide rapid recharger is available, and can hold two batteries. Each printer comes with its own software driver for either DOS, Windows, or the MacOS, and supports both TrueType and Adobe Type Manager font technologies.

The DeskJet 320 and DeskWriter 320, \$527, and the Colour kit, \$91, are distributed by Hewlett Packard, 131 347. ■

OZZIE'S WORLD

Young children have a natural affinity with nature. It's often the kids that cajole parents into recycling every little piece of paper and keeping the compost heap topped up. Ozzie's World allows the child to build on this caring role. Presented as a game, the kids initially explore Ozzie's World — visit his home, check out the veggie patch or go for a swim in the lake. In each scene they are welcomed by Ozzie in an animated introduction. Then it's up to the child as they click on many hot items, just to see what happens. Watch as the cabbage plays skittles with the carrots and see the fish using the six-pack ring as a hoop to jump. All pretty standard stuff up to this point, albeit with an environmental overtone.



The next level of the program is what sets Ozzie's World apart. When the child looks at each of the five scenes, he or she will notice a tiny treasure chest over as many as ten of the hot items on each scene. Press the Shift key while clicking the mouse and you are taken into a new phase of the program. Each of these

treasure chests leads to another activity, an experiment or a game. Most have an environmental theme and many of them are fun. Learn how to make a sundial, dry some fruit the natural way, build a model of the Earth moving around the sun. Learn how it feels to be a seal caught in a plastic ring or a bird in an oily sea. The material is presented as experiments to try or ideas for the child to think about, not simply as facts. The children relate to it all, whether it be caring for pets or learning about the wind. My daughter aged eight appreciated the way the program took her from just exploring, to really learning something about the Earth.

Ozzie's World provides us with American scenes of woods and lakes, but virtually all the activities are relevant to Australian children. It did take my son aged five a while to get used to the Shift plus mouse click combination. It didn't seem natural to him, but after a few tries he was off and running. He particularly enjoyed the hidden pictures and the puzzles. This program seems to have something for everyone. It provides a great vehicle to explore environmental issues in the school setting or is enjoyable enough for kids with an interest in this area to use at home. It can be used by the whole family and will suit children aged between four and eight. There's no other program like this one.

Ozzie's World, \$79, is produced in the USA by Digital Impact and is distributed in Australia by Impact Computers & Electronics, (02) 831 1192; fax (02) 622 8458. This CD-ROM is a dual Windows and Macintosh format and requires an MPC computer with 4MB of RAM or a Macintosh with a 14-inch screen — Anne Glover.

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Man has tried to
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Beyond exercise, there's a strong will.

Edit your Doom



Doom II might be out, but with the editors Marc Young found on his local BBS, there's still plenty of life in the original.

So you got the shareware version of Doom. You liked it, finished it and bought the registered version. Now you've finished that, where do you go? Doom 2 — Hell on Earth is now out and about (and at a price that will only encourage piracy), but don't throw out your copy of Doom, there's life in it yet!

Almost as soon as the first Doom was released, shareware libraries and Bulletin Boards were flooded with add-ons for it. The first few programs were saved-game editors, allowing you to boost your health enough to complete a level, or tool-up with the ammo you needed before a particularly nasty fight.

Far more useful, though, are the level editors. There are several available, varying in complexity and ease of use, but in essence, their aim is the same; to allow you to create your own Doom levels. One additional use is also to help you find those secret rooms in the current levels!

The best known is Deu, a freeware program which comes complete with source code so the hackers amongst you can see how it all works, or modify it to produce your own version. Deu is not, however, the easiest program to use — while it's difficult to come to grips with, it's the most powerful of the editors mentioned.

DoomCad is a Windows-based editor, written in Visual Basic. It's very easy to use, and has the added advantage of a 3D preview mode, which lets you view a wire-frame of your level. DoomCad also provides an excellent tutorial for first time users. The major problem in using DoomCad is that Doom will not run under Windows, so each time you want to try your level out, you need to quit Windows. Of course, when Doom for Windows is released...

Waded is a recent addition to the editors, and is possibly the easiest to use without the need to worry too much about the intricacies of the Doom file for-

mat. A Smart Draw mode lets you more or less sketch the map, with the program doing a lot of the hard work behind the scenes.

Dmapedit has been around for a while, in a crippled shareware version. The latest release, however, is not cut down in any way, and now contains additional documentation which makes it one of the better editors. This new version also comes with screen shots of version 4 of the program, which certainly looks good.

Where a registration fee is required with these programs, it is minimal, so I would recommend getting all four, and seeing which one suits you best.

While *.wad editors (a *.wad is the file used by Doom to hold all the data for the program) allow you to change the map, you are still limited to the graphics supplied with the original Doom. Designing a level to look like your office is fine, if your office has grey granite walls dripping with green ooze!

Luckily there are a number of utilities to help you change the graphics. The crux of them all is the utility Dmgraph by Bill Neisius. This utility allows you to extract or insert graphics files into a *.wad file. The program, while being extremely clever, is very basic, handling a single graphic file at a time, so major changes could take a while. Version 1.1 lets you change graphics in add-on Wads, rather than only changing the original Doom.wad, which is a far safer method, reducing the risk of you being left with an unplayable Doom program!

Dmadds is a program which lets you use Dmgraph to produce smaller, distributable *.wad files, containing only the new graphics which you have changed. Without Dmadds, changing a single sprite would still mean having to add all the other graphics to the *.wad file, leading to huge Wads to send to your friends. With Dmadds you only add the new graphics to your own *.wad, and distribute Dmadd

with it. To use the Wad, the Dmadds is run first, which copies the graphics from their original Doom file to the add-on *.wad.

With all these add-ons about, it is not surprising that a mini industry has grown up with new Doom levels, sounds and graphics appearing all the time. There are some just for a laugh — like the Simpsons' sound effects, or the one which turns imps into Pac-Man. There are others which are just additional levels — some specifically designed for cooperative or Deathmatch play over a modem or network.



There are even some — such as Aliens, in which there are additional graphics, sounds, music and maps — enough to make Doom almost look like a new game.

Want a Doom editor?

The level editors — Deu, DoomCad, Waded and Dmapedit — are available on many bulletin boards and through shareware dealers. If you don't have access to a modem, send a formatted, 3.5-inch, 1.44MD floppy disk to: *Doom, Your Computer, PO Box 199 Alexandria 2015 NSW*. Don't forget to include a return address — and please check that there are no files on the disk before sending it. We return disks with files on them as we receive them.

The other programs mentioned above are also available on bulletin boards. Their size prevents our sending them out on floppy — if you really want them, it could be time to buy a modem. ■

Waded is the easiest to use of the level editors. There is no need to know much about the intricacies of the Doom file format



TECH TIPS

If you have a PC problem that's been bugging you, put the details on paper and send them to us, and we'll try to help. On the other hand, if you have any technical advice or hints on using hardware or software that might interest others, drop us a line and we'll pass them on.

Write to:

Bob O'Rourke
Tech Tips
Your Computer
PO Box 199
Alexandria
NSW 2015
Fax: (02) 353
0720

From fans to FCBs

First of all I'd like to congratulate *Your Computer* magazine. I found it very helpful, especially the tip about leaving out the Setver program (in *Tech Tips Digest* number 2). I removed it from my config.sys file, and now my Trident 32-bit SVGA card works with the Trident driver from Windows for Workgroups 3.11, as it never worked with Setver in my config.sys file.

I have an Austin 486DX/40 with 8MB of RAM, a 256MB hard drive, and the aforementioned 32-bit Trident video card. I'd like to know whether I should be using 32-bit disk and file access or not. I know the computer can run in 32-bit mode, because it says so at boot-up.

However, I'm not sure if it's safe to use them, because a couple of months ago I set them both on, and about one month after doing so, the computer's clock ran one hour late, and then in another two weeks or so the fan started making weird noises, until it stopped altogether. I took the computer back under warranty and was told that one of the blades on the fan was bent.

I'm thinking of upgrading my PC, by adding an overdrive chip. Is this worth doing?

Also, a friend of mine has a monitor which makes clicking noises every 4 to 5 minutes, until it's turned off. Do you

know what could be causing this?

Finally, what is the 'FCB' line in config.sys for? I think it's the same as Setver, but it's gone from my config.sys file now, and I'm worried I'll need it.

Ernest Semerda

The term '32-bit' has become something of a buzz word of late, and you could be excused for thinking that anything 32-bit is wonderful, and anything less is not worth wasting time or money on. In reality, things aren't quite that simple, as the term is applied to a number of components, and has a slightly different meaning in different situations.

The basic definition of a 32-bit system is not ambiguous — it simply describes a system or component that handles 32 bits (or four bytes) of data at once. This is obviously twice as much as a 16-bit system, and half as much as a 64-bit one. But these factors of two usually don't correspond to a straight halving or doubling of system speed, because other factors also have a determination on overall speed.

The processor itself in a 386DX or any 486 system is a 32-bit device. It can communicate with external memory 32 bits at a time, but under software control it can do so just 16 or even eight bits at a time. Because most of the programs running on PCs today date back to the 8086 and 286 processors (which were 16-bit devices), they only use 16-bit

instructions, so even if they're running on a system with a 32-bit processor, the extra width of the processor offers no speed advantage, since the software is only operating as if it were on a 16-bit chip.

The bulk of the Windows system (and the DOS operating system which still plays a vital part in Windows' operation) is 16-bit software, because of the historical origins of the software. This is why Windows will still run on a 286 (albeit, rather badly). What the 32-bit file and disk access do is use 32-bit code for those parts of Windows, to boost performance. However this code is incompatible with some hardware (such as power-saving features in notebooks), so the option is there to leave it turned off.

The '32-bit' description, in the context of your video card, is referring to the width of the card's own on-board graphics processor. This chip takes a lot of the load off the main CPU when drawing images on the screen, and again, a 64-bit model is in general faster than a 32-bit card. But it's completely independent of the settings of file and disk access in Windows, although all contribute to improved speed.

As for compatibility of the 32-bit settings in Windows, if there is a problem with your particular system, you'll notice the problem pretty soon — certainly a lot sooner than one month! The lost time in your system clock sounds more akin to a dying battery than anything to do with disk access. And I have to agree with your dealer — the noisy fan can be nothing but a mechanical problem of some sort.

Another way of speeding up your system, as you have already noted, is to install an Overdrive processor. This will speed up the system by operating internally at a higher speed than the motherboard, and can provide a worthwhile improvement in processor-intensive tasks, provided your system is reasonably well-optimised in other areas.

In your case, an extra 8MB of RAM might be a better investment than a faster processor. If you find Windows is doing a lot of disk access (other than when you're

loading or saving files), then it could be running short of memory, and having to temporarily store programs and data on the hard disk. Adding more RAM will reduce this dramatically, providing a very worthwhile improvement in speed. If the lack of RAM is causing a lot of disk swapping, boosting the processor speed won't noticeably improve overall performance, since the slow disk drive is the limiting factor.

While Windows says it will run in any machine with 2MB or more of RAM, in reality even 4MB is too small once you set aside some of it for a disk cache (1MB is a good starting point). Load up a couple of average Windows applications, and 8MB becomes a more sensible entry-level figure. If you're planning on doing anything even remotely demanding then start at 16MB and go up from there.

If you decide that an Overdrive chip (Overdrive is an Intel trademark) is the way to go, perhaps in conjunction with some more memory, make sure your motherboard can actually use one. A 40MHz motherboard will need to be slowed down to 33MHz in order to use a 66MHz Overdrive chip (because the Overdrive chip doubles the speed internally) — there's no 80MHz part I'm aware of. Don't even consider plugging a 66MHz chip in and trying to run it at 80MHz — it's a good way to cook an expensive chip.

Onto your friend's clicking monitor: it sounds to me like the EHT (extra high tension) supply is arcing over somewhere inside. On no account should you attempt to investigate this problem yourself — the voltages inside can kill. If you're sure it's not just the sound of the cabinet expanding and contracting as it heats up and cools down, refer it to a reputable dealer for service.

The 'FCB' statement in config.sys refers to File Control Blocks. This is an old (and

outdated) way of accessing files, and was carried over to MS-DOS to provide some level of compatibility with CP/M (which is where they originated). Unless you're running very old DOS software, none of your software should care how many FCBs are there, so you might as well just leave the statement out. The modern method for programs to access files is through a File Handle, and that's what the 'Files=' statement in config.sys is for. Provided you have enough of those available (30 is usually adequate for most needs), your software won't have any trouble opening the files it needs.

So although FCBs and Setver have nothing to do with each other, they are similar, in that in most cases you won't need either.

Why not triple?

I'm writing to you in relation to the letter in the September edition, 'Compression Revisited'. The reason for the popularity of Windows is mostly caused by first time computer buyers (and novice users), who are naturally happy to accept the easy way Windows works. However most novice users in time become more familiar with their computer (and DOS), and move more and more towards DOS. I went down this path and must say that Windows is on the to-delete list as soon as I need the hard disk space.

I also used the technique described in September to run compressed programs via batch file commands. Then along came Doublespace with a big bang promising to solve the hard disk cram. I decided not to trust it and left the big bang for others. I continued to launch my programs with the rather messy but trusty batch file technique, although not all programs lent themselves to be executed in this way.

That was until three months ago, when I discovered Triplespace. This program launcher is a godsend that ended the directory and batch file clutter for me. Triplespace works with Arj, Zip and LHA files. Adding a program is easy, being a matter of first compressing it, and then adding it to a list. As Triplespace adds new and changed files to the archive for the application, I could even add my word processor and spreadsheet to the list of compressed programs.

You can find Triplespace on the Sydney PC Users Group BBS as Tspace22.Zip, and I've also seen it on a few other boards.

Gerhard Roehrig

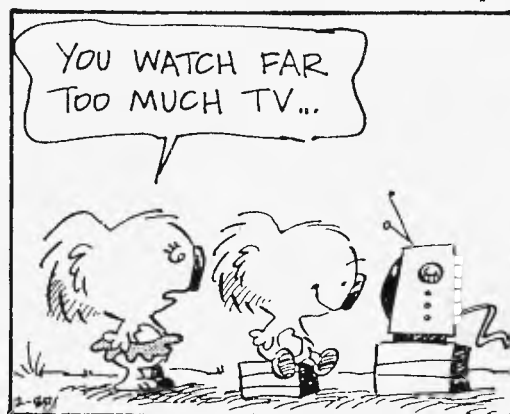
That sounds like a good way of getting the benefit of the compression rates offered by the popular archiving utilities, without the hassle of setting up batch files. While you will get better compression rates than with an on-the-fly system like Doublespace (where speed is of paramount importance), don't expect to get three times compression on all files, as the amount of compression actually obtained depends largely on the type of files you're compressing. As a rule programs don't compress as well as text files, while databases tend to compress even better. Files that are already compressed (even badly) generally don't compress any more.

The cramped desktop

Many people who run Windows have a problem with their screen resolution or fonts. Users with large monitors usually want their system fonts more legible, while users with small monitors want to cram as much as possible onto their desktop. Instead of getting a bigger monitor, you can change the appearance of the Icon labels in Windows' win.ini file.

Open the win.ini file in notepad, and

Beyond the Black Stump



By Leahy & Piper

ROD IRVING ELECTRONICS/SOFTWARE EXPRESS TIP

The best Tech Tip published each month will earn the author a \$100 voucher, redeemable at any Rod Irving Electronics or Software Express store, or by mail order from either company.

Helping Memmaker help you

Even after running Memmaker, I've often found that a large TSR has been put into conventional memory, despite there being more than enough UMA (Upper Memory Area) space to accommodate it. Whenever I included previous Memmaker parameters on the Loadhigh command lines of TSRs that were not optimised, I kept getting the same results. This can be explained by DOS looking for enough UMA space, as specified in the Minsize parameter of each Loadhigh or Devicehigh statement, and only loading the particular TSR if enough memory is available. The TSR then terminates, making it smaller in memory, freeing up some of the memory it had been using to load.

Understanding this, I realised that the order in which TSRs loaded affected how many could fit into the UMA — the optimum order being that which released the most memory after each successive TSR was terminated. To find this order, I used the following steps: First, note the size of each TSR using the mem/c command at the DOS prompt. Make sure that no TSRs are loaded high by Loadhigh or Devicehigh commands, and then run Memmaker. (If TSRs are already loaded by Loadhigh or Devicehigh statements, Memmaker will ignore them.)

Open the config.sys and autoexec.bat files, and note minimum memory size that the program needs to load (the second number in the /L:x,y switch) for each optimised TSR. Then put a Rem statement in front of each line having a /L:x,y parameter, to temporarily stop them being loaded.

Run Memmaker again, and again check the minimum sizes in config.sys and autoexec.bat as before. For each TSR subtract from this figure, the figure obtained from the mem/c command above. Rank the programs in descending order, for both the config.sys and autoexec.bat files, and then change the order of the lines in each file to match these lists.

This gives the optimum configuration for the UMA, but due to the irregular sizes of programs, you still might have to put TSRs into conventional memory. For example, Doublespace will usually come last in any ranking, but requires a lot of memory. As a general rule, make sure that the largest three or four TSRs appear first in each file. Also, doubling the minimum memory size figure for the calculations above sometimes helps. I've found that if all the TSRs don't fit into the UMA after the first go, some degree of fiddling around is inevitable.

Also, unless you really need expanded (EMS) memory, use extended memory. This frees up an extra 64KB of UMA that would otherwise have been reserved for the EMS page frame. Finally, for both XMS and EMS users, I've found that the smaller the UMA, the better. Any amount you reduce the size of the UMA, that much more memory becomes available as extended memory (at least on my computer). This can be done using the x=mmmm-nnnn switch with emm386.exe.

Be careful though — if you specify a range which includes shadow RAM, your system will hang. And if you use EMS and make the UMA smaller than 64KB, or exclude memory right up to the EMS page frame, EMS may not work properly. And, if you make the UMA too small, you might not be able to fit all your TSRs in there. Also remember in your calculations that EMM386 takes up the first 5KB of available adaptor space without reporting it. I've also found MSD (the Microsoft Diagnostics program that comes with DOS) is invaluable.

Janagan Yogaranpan

Device drivers and TSRs (terminate and stay-resident programs) typically use more memory during initialisation than they do when they're actually loaded and running. This allows them to interpret the command line, provide useful error messages to the user, and other tasks that consume inordinate amounts of memory, while achieving nothing once the driver or program is running.

Unfortunately, the memory these programs require has to be contiguous — it can't be two (or more) separate segments in memory, which is how the upper memory area tends to end up. So even if the program will fit in the space remaining in a particular upper memory block, it has to fit the extra initialisation code in that area as well.

Also, knowing which order yields the best memory usage is of little help if some programs or drivers depend on other components having been loaded beforehand. For starters, everything in the config.sys file will be loaded before anything in autoexec.bat — that's a fact of life with DOS. However, some programs that would normally be loaded in autoexec.bat can be loaded in config.sys instead.

Another consideration is that a lot of mice come with both a device driver (*.sys) and program (*.com) version of their driver, so one might allow you to make better use of available memory than the other.

One more memory optimisation tip to remember is that Memmaker will only optimise programs called from the config.sys and autoexec.bat files. It won't look at any batch files called from autoexec.bat, so if you call another batch file to say, connect to a network, it's a good idea to take any TSR programs out of the batch file and put them into autoexec.bat, so that they will be optimised with the rest of the system.

Your comments about EMS and XMS are also worth reinforcing. Very little of today's software needs (or can even use) EMS memory. EMS was a kludge to get around the memory restrictions of the 8088 processor to handle large amounts of data. It was also popular in 286 machines because although it could address up to 16MB, it couldn't run DOS programs in that mode. But with the arrival of the 386, the memory management issue was resolved, and the EMS work-around was no longer necessary.

Your observation about XMS memory disappearing when allocating upper memory blocks is also quite right. That memory you're loading the programs into has to come from somewhere, and emm386.exe takes it from the pool of extended memory that it manages. While there are areas of unused memory space between the top of RAM and the system ROMs, there is no physical memory in these locations. So in order to load programs into these regions, emm386.exe takes extended memory, which can't be used by real-mode DOS programs or drivers, and re-maps it into these vacant regions, which are accessible to real-mode software.



add the following lines in the [Desktop] Section:
 IconTitleFaceName=Arial
 IconTitleSize=10
 IconTitleStyle=0
 IconSpacing=80
 IconVerticalSpacing=80

The IconTitleFaceName can be any font found in the Control Panel Font dialog box. The IconTitleSize determines the point size of the font, and IconTitleStyle determines whether the font is bold (1) or normal (0). Once you've added these lines, save the settings, and reboot Windows.

Stephen Tang

Using larger-than-normal fonts on the desktop of a small monitor can be a good compromise between a high resolution display and still being able to read the fine print labelling the icons.

Unfortunately this method doesn't affect the size of other items of on-screen text, such as menus and window titles.

The IconSpacing parameter can be changed from the Desktop section of Control Panel, although the vertical spacing can't.

Forcing a 'yes'

The publication of the second volume of *Tech Tips Digest* gives me an excuse to revisit one of the older suggestions. Way back in September 1992, I observed that 'the only disadvantage [of the tip], if indeed it is a disadvantage, is that you have to answer 'y' to the message displays when you ask it to delete all the files'.

There is a fairly straightforward way of avoiding this problem, and to permit your batch files to operate without human intervention. As a tinkerer I find that I accumulate temporary files as a result of the inevitable program crashes. To clean out the temporary directory, I have added the following to my autoexec.bat file:

```
Echo y|del c:\temp\*. * >nul
```

This pipes the character 'y' into the delete command, saving the need for you to enter it from the keyboard. The '>nul' at the end suppresses the message asking you to enter 'y' or 'n'. MS-DOS 6 provides an alternative, which deletes all subdirectories as well: 'deltree /y c:\temp*.*'

Of course, you want to make sure that you really do want to delete everything in the directory — there are no second chances.

Martin Dunn ■

MicroGram Computers

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Mounting stand with magnetic restrainer.

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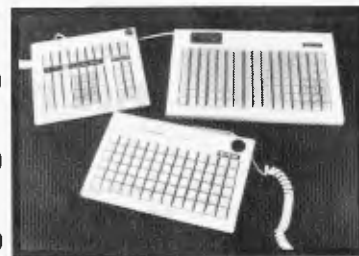
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When trouble strikes PC911 will restore your original configuration and avoids IRQ and DMA conflicts.

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NU Loopback Plug Set

Norton Utilities Version 7 & 8 includes hardware diagnostics, including parallel and serial ports. This loopback plug set is required for the complete tests.

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We offer a package solution consisting of:

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The Lightspeed Fax/Modem is complete with V.42bis, V.42 and MNP5 error correction and data compression as well as fax and data software for both Windows and DOS platforms.

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Electronic secretary

Plus: TCP/IP for Apple Macs; LANtastic for OS/2; and more ...

With
Richard Main

TCP/IP for Apple Macs

Apple Computer is now shipping Apple IP Gateway for AppleTalk users. In combination with the firm's remote access products and MacTCP, the gateway will give Apple users dial-up access to IP (Internet Protocol)-based services. IP is the most fundamental Internet protocol, used to send packets across multiple networks.

Eric Gould, Apple's product line manager of communication products in the business systems division, told Newsbytes that the product is intended to 'lend synergy' to Apple's communications and remote access products, and to complete a 'total solution' for users who have MacTCP or who have upgraded to the System 7.5 operating system, which incorporates MacTCP as core technology.

MacTCP client software lets Macintosh computers on IP networks communicate using TCP/IP (Transmission Control Protocol/Internet Protocol). With the IP Gateway, a MacTCP client can connect Macs connected to an AppleTalk network. The Gateway acts as a translator between AppleTalk and TCP/IP network protocols, letting Macs on AppleTalk networks access IP services as if they were on the IP network. Taken together, MacTCP and the Gateway enable multiprotocol connectivity, the firm said.

'Of course, the Internet by itself supports IP,' Gould said, 'but LocalTalk, Token Ring and others do not. We wanted to allow such systems to get dial-up access to IP networks.'

Apple said the Gateway can also be used as a stand-alone IP Gateway server, or in combination with other Apple products including the Remote Access Personal Server 2.0.1, Remote Access MultiPort Server 2.0.1, or Internet Router 3.0.1. With the Gateway, an Apple user can access TCP/IP services, using

tools such as Telnet, File Transfer Protocol (FTP), Gopher, World-Wide Web and Wide Area Information Servers (WAIS), while keeping full access to their existing AppleTalk services. Customers can, for instance, simultaneously connect to an AppleShare fileserver through AppleTalk and a Unix host through FTP.

The Apple IP Gateway is a stand-alone software package, available through Apple authorised resellers at list \$749. Contact Apple on (02) 452 8000 for more information — **Newsbytes**.

LANtastic for OS/2

Artisoft has announced what it claims is the industry's first true 32-bit network operating system (NOS) for OS/2, LANtastic for OS/2. According to Artisoft, the NOS will allow LANtastic network users to integrate OS/2 office machines into their existing DOS and Windows networks.

Sunil Padiyar, Artisoft's vice president of software products, claims that the company offers network operating system linkage across most popular personal computing environments, including DOS, Windows, Apple Computer Mac, and Unix platforms.

'This product is a direct result of our relationship with IBM,' he explained, adding that he is pleased that the company has had a chance to develop a peer-to-peer network for the OS/2 user base. According to Padiyar, users of LANtastic for OS/2 will be able to connect to all other Artisoft network products, including the Corstream dedicated server, and the Simply LANtastic package. Newsbytes notes that OS/2 network users will be able to have NetWare 3 and 4 client software alongside LAN Server software on the same networked PC. This will allow users to have clients on multiple networks operating simultaneously, Artisoft claims.

'This network is a desirable solution for existing OS/2 users who are considering a network because it is the only true OS/2 peer-to-peer system available. It also offers OS/2 workgroup users an easy way to add peer features to their network while maintaining connectivity to the enterprise LAN,' Padiyar said.

When the package ships, sometime in December, pricing will be \$190 for a single user kit, ranging to \$6847 for 100 users. Contact Artisoft Australia, (02) 880 2688; fax (02) 988 4643 — **Newsbytes**.

NetComm's electronic secretary

A modem that is not 'just another modem' is the SmartModem V8 from NetComm. Sharing the same case as its stable-mates, it does not look as though it could perform as your Electronic Secretary. However, looks can be deceptive.

The SmartModem V8 is a V32bis capable modem, that is it will communicate with other modems complying with CCITT Standards at speeds from 300 baud to 14.4kps. Error correction includes MNP 2-4 and MNP 10 as well as V42 whilst compression can be accomplished with either MNP5 or V42bis. Fax is Group 3 compatible and is Class 2 which provides wide compatibility with PC communications and fax programs. Fax speeds are V17 (14.4kps), V29 (9.6kps) and V27ter (4.8kps) as well as their respective fallback speeds. This means that it should and does connect to any fax machine or fax modem.

The SmartModem V8 is housed in a plastic case measuring 218mm deep, 122mm wide and 31mm high. The front panel has nine LEDs and a flip-down door that hides six DIP switches and two push switches. The rear panel has two modular sockets, a DB25 female socket, a power socket and a rocker power switch. Suitable phone cable and plugs are provided as is a cable allowing connection to either a DB25 or DB9 serial port. The power pack is a plug pack with a rated output of 15v AC at 10VA. The unit is 52mm wide

Dynalink
MODEMS

BitFax Professional

These days all modems come with bundled Windows fax software. Generally it's the "Lite" version of a more fully featured product. The "Lite" products offer basic Windows printer functions, archiving of faxes sent and received, basic phonebook management etc.

Now there's **BitFax Professional 3** a bundled product with all the advanced features.

Have a look at this list:

Custom cover page design	✓	✓
Twain scanner support	✓	✓
Optional auto view/print received faxes	✓	✓
OCR to translate fax to WP text	✓	✓
Export faxes as PCX, TIFF, BMP	✓	✓
Annotate faxes with drawing and text tools	✓	✓
Anti-aliasing to enhance fax viewing	✓	✓
"Thumbnail" view	✓	✓
User-defined folders for fax storage/retrieval	✓	✓
Compress stored faxes to save disk space	✓	✓
Import ASCII, dBase etc file for phonebooks	✓	✓
Use phonebooks from other applications	✓	✗
"One-button" fax with WinWord, Excel, Ami Pro	✓	✓
"Drag and drop" faxing	✓	✓
DDE macros	✓	✓
Integrated comms program	✗	✓
"Fax-a-file"	✓	✗
Auto switch between fax and data calls	✗	✓
Fax forwarding and retrieval	✓	✓

Price

Winfax
Pro 4

BitFax
Professional 3

Approx
\$200

FREE with
all Dynalink
modems



Call toll-free 1800-653-962 (1800-OK-DYNA)
for the name of a dealer near you.



NETCOMM AUTOMODEM E11F

NetComm's new low cost modem, the AutoModem E11F, is capable of speeds up to 28.8kps (V.FAST), and supports the V.42 and V.42bis error correction and data compression standards. The AutoModem E11F comes complete with version 1.2 of the popular Cooee communications software.

Purchasers of the AutoModem E11F and the more powerful SmartModem M11F will be able to upgrade these modems to the V.34 standard for a nominal charge, and existing NetComm users of the Cooee Lite software can upgrade to Cooee 1.2.

The AutoModem E11F, \$649, is distributed by NetComm, (02) 888 5533; fax (02) 887 2839.



and requires 26mm clearance below a standard power outlet. All necessary software is supplied for data communications, fax and the Electronic Secretary functions. Full documentation is supplied for modem installation, software installation and all operational requirements.

The case is worth a second look. It is Australian designed and made, and currently houses all the NetComm range. It is remarkable in that it requires no tools for assembly and very little for disassembly. With the influx of modems from overseas it is easy to forget that the local product not only works extremely well but is also of superior design.

As a modem, the SmartModem V8 performs exceptionally well. My first impression was that it was very, very loud. Even with the speaker volume set low (L0) it

was still quite loud, but there is a reason for this — more later. General operation as a modem using factory defaults gave smooth connections to bulletin boards. Transfer rates were very good. Using a 180k *.zip file that I use for tests and transferring from a known source gave a clean 1657cps. This is quite respectable by any standard. The factory defaults left compression enabled and a transfer of text files showed a very satisfactory performance with figures in the 3200cps region.

The included software is a three disk set of Cooee Voice — Cooee is the name given to the software that accompanies NetComm modems. The current version is v1.2 but I received v1.101. It takes some minutes to install and I found that with my version it was not all smooth sailing.

During the last part of the installation the program tests the availability of serial ports. I found that this was where the whole installation process ground to a halt. It took a number of attempts before the software was able to locate the serial ports and attached modem. Cooee is a Windows based program and as such is installed through Windows. It also needs Windows running for it to be functional. The NetComm Electronic Secretary is part software in Cooee and part voice capable modem. The software requires nearly 16 megabytes of hard disk space for installation.

The Electronic Secretary can function in exactly the same manner as an ordinary answering machine. It will answer the phone and play a pre-recorded message then allow callers to leave a message. Default messages are supplied including one that informs callers when the system (disk) is full, it suggests that they call later. The messages received may be played back locally or at a remote location

via a telephone call. Again, the operation of this process is similar to that required by many answering machines. You call your own number and when your Electronic Secretary answers press the # key and you will be prompted for your PIN number.

The remote access offers full security to ensure the privacy of your messages. So far, the Electronic Secretary does not sound much different to your regular answering machine. However, it can be set to contact you on any other number, including your cellular phone, to advise you that you have messages waiting. This function may be set to call you as soon as something comes in or to wait until a preset time. The Electronic Secretary will also call your paging service if required. If you have a PABX system in your office, the Electronic Secretary can answer a call then re-route it to you at a different extension.

As the SmartModem V8 is also a fax it is able to detect incoming fax calls and differentiate between them and voice or data calls. Incoming faxes are recorded and will be forwarded to you at a remote location if required when you call to collect messages. The Electronic Secretary will ask you if you want faxes forwarded when you call, provided a fax has been received.

One of the most powerful features for a small business could be the Electronic Secretary's faxback capability. Customers may call and request an index of faxes available or individual faxes. The faxes available are determined by you and would typically be product information, brochures or other information relating to your business. This facility can be made available 24 hours a day. A complete log is kept on all callers' requests and of callers' phone numbers.

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faxback calls by use of a simple 'call barring' which is based on the number of digits in the number to be called. This would allow you to restrict calls to your local area or allow complete national faxback.

If you do not place some restriction on the digit length then international calls may be made at your expense. You are able to ban calls to specified numbers also.

The faxback function answers callers with a message and directs them through the process of retrieving printed information. It prompts for a fax number to call. The answering machine capability is disabled when faxback is enabled. The modem speaker may be selected as the playback device for all voice messages. This is why the in-built speaker is loud and clear even on a low setting. Alternatively you may use a handset connected to the modem or a multimedia device (sound card) for message playback.

The SmartModem V8 from NetComm comes with a 12 month warranty, and is priced at \$749. NetComm can be contacted on (02) 888 5533; fax (02) 887 2839 — **Trevor Sheffield.**

Delrina purchases Talkworks

Delrina Corp., publisher of the popular WinFax and WinComm telecommunication programs, has bought AudioFile Inc. The firm says it will integrate AudioFile's TalkWorks for Windows, a PC-Telephony voice communications tool, into its communications products.

AudioFile's TalkWorks lets users record and play voice messages, and attach voice messages to e-mail, Lotus Notes, databases, electronic forms, personal in-

formation management (PIM) systems and other applications. TalkWorks supports most sound boards and can use a telephone to play and record audio, Delrina said.

In an interview, Delrina spokesperson Josef Zankowicz told Newsbytes the AudioFile acquisition will give the firm an advantage as PC-to-telephone linking technology continues to heat up.

'With the success we've had with WinFax and Microsoft Windows, we've seen the personal computer swallow the traditional fax machine,' Zankowicz continued. 'I think that as the industry moves forward, as more convergence takes place, we'll see the personal computer swallow the telephone too. Delrina is in a solid position to capitalise on this trend.'

Makers of fax machines, who have been introducing colour faxes and plain paper machines that can double as printers and scanners, might dispute the idea that PCs have 'swallowed' the fax machine. Still, desktop computing is converging with telephony and Zankowicz said Delrina plans to stay on top of that trend.

Delrina said AudioFile's research division in Lexington, Massachusetts, will explore 'easier and more affordable ways to improve business communications' — **Newsbytes.**

Free Mosaic viewer

Mosaic Communications, a six-month old corporation, headed by Jim Clark, founder of Silicon Graphics, has announced a beta

version of its Mosaic Netscape free to any individual, academic or research user. Available immediately, the new Internet navigator features document interaction before the entire document is downloaded, concurrent downloading of documents from different servers, and native support for Joint Photographic Experts Group (JPEG) format.

Many users are expected to welcome the capability of working on a document prior to completing its download. One of the main complaints with Internet and other online services is the idle time created while a document is downloaded. Also, the opportunity to access multiple servers simultaneously promises to further reduce idle time.

Jim Clark developed the navigator with Mosaic creator, Marc Andreessen, who is now vice president at Mosaic Communications. The company also addressed the always prevalent topic of network security necessary for commercial transactions. Mosaic Netscape provides encryption and server authentication which is designed to pair with Mosaic Netsite Commerce Server, released in November.

Mosaic Netscape, in its final version, should be ready about the same time as the Commerce Server. In keeping with the Internet tradition of free downloads, Mosaic Communications says the final version will be available on the 'net free.

The company says this new navigator is optimised to run on 14,400 bits-per-second (bps) modems and a speed of 10

AVTEK'S NEW MODEM RANGE

Avtek has released a new range of modems, the MegaPlus Fax 28.8 and the Mega DataFax 144. The MegaPlus 28.8 is a full featured desktop data/fax modem with support for speeds from



300 to 28,800bps. The modem supports V.42 (MNP4) error correction, and V.42bis (MNP5) data compression standards. The modem also supports MNP10, which is ideal for poor line conditions.

The Mega DataFax 144 offers a top speed of 14.4kps, and offers support for V.42 error correction and V.42bis

data compression through software.

The new range of voice modems, the 2400bps MegaPlus Voice and 14,400bps MegaPlus Voice automatically identify incoming calls as voice, data, or fax and will store them accordingly. In conjunction with a computer the voice modems can act as an

answering machine for remote access to messages. Cooee v1.2 communications software comes complete with both modems.

The MegaPlus Fax, \$499, Mega DataFax 144, \$299, 2400bps MegaPlus Voice, \$349, and the MegaPlus Voice 144, \$499, are distributed by Avtek, (02) 888 5533; fax (02) 887 2839.

times that of other network browsers is predicted. Netscape runs on Windows, Macintosh, and X Window environments.

Mosaic Netscape is for personal use only. A licensed version for commercial use is available through Mosaic Communications. The free beta version may be obtained by anonymous FTP (file transfer protocol) from the following address: ftp.mcom.com.

Speaking for Mosaic Communications, Rosanne Silino told Newsbytes, 'After taking a good look at the number of PC and Mac users accessing the 'net, we decided there was a great demand for Internet tools on both platforms.'

'This first release of Netscape is just a beginning of features we intend to provide. A lot of people think of a browser as just something to view the World-Wide

Web. Mosaic Netscape has been developed as a complete Internet navigator.'

Readers may wonder how a company makes money off a free navigator. The company said it has never looked at the navigation side as a source of profit and its source of revenue is from the server, support, and services side of the business — **Newsbytes.**

Total Systems: 1089

BBS Listing 9411

* = New System

New systems: 32; Permanently Offline: 13; Name Change: 3; Amended: 18; Total Systems Online: 1089

Primary electronic collection points: *National* — Australian BBS Registry (047) 35 6789; *ACT* — Caught in the ACT BBS (06) 292 8288; *NSW* — #1 BBS (02) 544 7123; *Vic* — The Infinity Links BBS (03) 850 9115; *Qld* — The Galaxy GateWay Computer System (074) 26 8557; *SA* — Oracle PC-Network (08) 234 0791; *WA* — 1990 Multiline (09) 370 3333; *Tas* — Tassie DataBank (003) 44 9762; *NT* — CyberNet IV (089) 45 3638

AUSTRALIAN CAPITAL TERRITORY

* Breaking Away	David Fabris	(06) 231-1318	V.32/32bis	Public	24 Hours
* Capital BBS	Matt Austen	(06) 292-8086	V.22bis/23/32/32bis V.FC	Mem VA	24 Hours
* Chaos to Order	Paul Bowtle	(06) 282-3209	V.22/22bis/32/32bis	Reg VA	Limited
* GridPoint	Armitage	(06) 258-3023	V.22/22bis/32/32bis	Mem Reg LVA	24 Hours

NEW SOUTH WALES

500cc Formula One TBBS	Dino	(02) 565-1630	V.22/22bis/32/32bis PEP V.FC	Reg	24 Hours
* A L P H A II BBS	Andrew	(02) 567-7096	V.22/22bis/23/32/32bis	Mem VA	Limited
A Vampire's Crypt	Darren French	(02) 837-2645	V.22bis/32/32bis	Reg LVA	24 Hours
AfterShock	Now called dejavu.geko.com.au				
Amiga Exchange Australia	Permanently Offline				

COMPLETE BBS REGISTRY LISTING

We publish updates — new systems and changes to the status of other systems — for the National BBS Listing every month. The complete listing is available for downloading from the primary electronic collection points in each state — it's about 850KB uncompressed. If you would like a current, complete listing without having to download it, send an IBM-formatted floppy disk to: BBS Listing, *Your Computer*, PO Box 199, Alexandria NSW 2015. This complete listing is provided in two forms: one is suitable for importing directly into the dialling directory of your communications software, and the other lists complete details of registered systems — including the areas each board specialises in. Separate listings are also given for Fidonet, Gnet, Intlnet, Worldnet and Amiganet boards. There is also a file, bbshelp.txt, which explains the abbreviations used in the listing and provides other helpful information.

Registration of Bulletin Boards is only accepted electronically at the Primary Electronic Collection Points — please address all enquiries through them.



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* Coalfields BBS	Craig Robinson	(049) 98-1462	V.21/22/22bis/23/32/32bis	Reg VA	24 Hours
* DarkZone	immortal iLLUSiON	(063) 72-1260	V.21/22/22bis/23/32/32bis	Public	24 Hours
dejavu.geko.com.au	Angry	(02) 740-4410	V.22bis/32/32bis	Mem Reg	24 Hours
Electronic Pandora	Permanently Offline				
* Flashpoint BBS	Max Wild	(02) 958-3766	V.22bis/32/32bis V.FC	Public	24 Hours
Hot-Line	Nick Harvey	(02) 369-3244	V.21/22/22bis/23/32/32bis V.FC	Reg VA	24 Hours
Klub Kaos BBS	Permanently Offline				
Local BBS	Tony Dodds	(049) 62-1768	V.21/22/22bis/23/32/32bis V.FC	Mem LVA	24 Hours
* Millenium	Alex Assouline	(02) 869-0235	V.21/22/22bis/23	Public	24 Hours
NetRunners	P Zagoridis/P Camillos	(02) 824-1097	V.21/22/22bis/32	Mem Reg VA	24 Hours
* PC2000 BBS	Timothy Mole	(066) 51-6625	V.22/22bis/32/32bis	Mem Reg VA	24 Hours
* Sanctuary BBS	Arie G. Upton	(049) 43-9243	V.22bis/32/32bis	Public	Limited
Silent Running	Permanently Offline				
* Spotty's Den BBS	Brad Dixon	(02) 546-5106	V.21/22/22bis/32/32bis	Mem Reg VA	24 Hours
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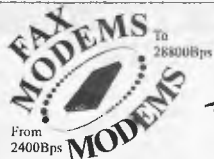
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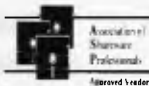
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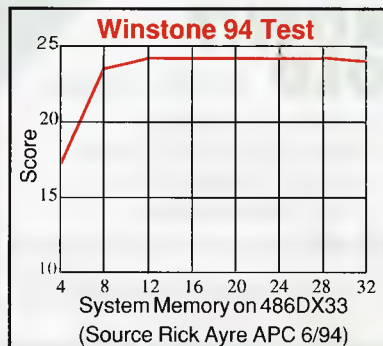
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Mice

Original Microsoft V2 50
Serial Mouse 20

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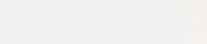
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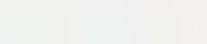
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A = AMD I = INTEL

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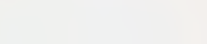
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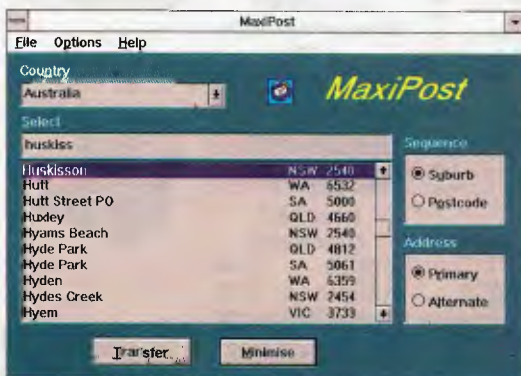
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